

AUTOMOTIVE PRODUCTS BROCHURE



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Automotive Products

Small Signal MOSFETs

Part Number	Package	Channel	Power Rating	Drain-Source Voltage	Gate Source Voltage	Drain Current	Static Drain-Source On-Resistance			Gate Threshold Voltage (Min)	Gate Threshold Voltage (Max)	Input Capacitance	ESD Diodes (Y/N)
			P _D (W)	V _{DS} (V)	V _{GS} (V)	I _D (A)	R _{DS(ON)} (Ω) @10V	R _{DS(ON)} (Ω) @4.5V	R _{DS(ON)} (Ω) @2.5V	V _{GS(th)} (V)	V _{GS(th)} (V)	C _{iss} (pF)	
MCMN2014HE3	DFN2020-6LE	N	2.4	12	±8.0	15		0.009	0.011	0.4	1.1	1337	No
SI2102AHE3	SOT-323	N	0.35	20	±10	2		0.08	0.098	0.5	1.1	210	No
SI2312HE3	SOT-23	N	1.25	20	±8	5		0.0318	0.0356	0.45	1	668	No
SI3400AHE3	SOT-23	N	1.3	30	±12	5.8	0.027	0.033	0.051	0.7	1.2	630	No
2SK3019HE3	SOT-523	N	0.15	30	±20	0.115	4	5	7	0.8	1.5	28	Yes
SIL3400AHE3	SOT23-6L	N	1.8	30	±12	5.8	0.026	0.033		0.5	1.5	580	No
SI3404HE3	SOT-23	N	1.2	30	±20	5.8	0.028	0.042		1	3	820	No
SI02N04AKHE3	SOT-23	N	1.1	40	±20	2.5	0.091	0.135		1	2.5	150	Yes
BSS138AKDWHE3	SOT-363	N+N	0.32	50	±20	0.22	1.6	2.5	3.8	0.8	1.45	29.5	Yes
BSS138AHE3	SOT-23	N	0.62	50	±20	0.22	1.6	2.5	3.8	0.8	1.45	29	Yes
SI2310AHE3	SOT-23	N	1.2	60	±20	3	0.1	0.12		0.9	2	409	No
2N7002KDWBQ	SOT-363	N+N	0.24	60	±20	0.22	2.5	3		0.8	2.4	25	Yes
SIL05N06HE3	SOT23-6L	N	1.8	60	±20	5	0.043	0.047		1	3	1175	No
2N7002KDQ	SOT-23	N	0.526	60	±20	0.3	2			1.1	2.4	25	Yes
2N7002KHE3	SOT-23	N	0.35	60	±20	0.34	2.5	3		1	2.5	16	Yes
2N7002KWHE3	SOT-323	N	0.33	60	±20	0.34	2.5	3		1	2	15	Yes
BSS123KHE3	SOT-23	N	0.78	100	±20	0.28	4.6	6		1.5	2.5	32	Yes
SIL2429HE3	SOT23-6L	N+P	0.67	20/-20	±10	2.0/-1.6		0.057/0.120	0.075/0.165	0.55/-0.4	1.1/-1.0	188/214	No
SI3415CHE3	SOT-23	P	1	-20	±10	-3.9		0.04	0.075	-0.55	-1.25	540	Yes
SI2101AHE3	SOT-323	P	0.3	-20	±10	-1.2		0.13	0.17	-0.3	-1	210	No
SI2301AHE3	SOT-23	P	1	-20	±10	-3.4		0.051	0.067	-0.4	-1	480	No
SI2305CHE3	SOT-23	P	1.3	-20	±12	-5.4		0.04	0.055	-0.5	-1	770	No
SIL2305CHE3	SOT23-6L	P	1.8	-20	±12	-5.6		0.04	0.055	-0.5	-1	770	No
SI2305BHE3	SOT-23	P	1.4	-20	±10	-4.2		0.06	0.08	-0.5	-0.9	770	No
SIL3415CHE3	SOT23-6L	P	1	-20	±10	-5		0.045		-0.5	-1.25	540	Yes
SI2301HE3	SOT-23	P	1.1	-20	±12	-2.4		0.1		-0.5	-1.5	418	Yes
SI3407HE3	SOT-23	P	1.3	-30	±20	-4.1	0.049	0.065		-1	-2.4	592	No
SI3401AHE3	SOT-23	P	1.2	-30	±12	-4.4	0.06	0.07	0.085	-0.7	-1.3	1050	No
BSS84HE3	SOT-23	P	0.5	-60	±20	-0.2	3.6	4.7		-0.9	-2	27	No
BSS84KHE3	SOT-23	P	0.96	-60	±20	-0.4	2.9	3.5		-1	-2.5	33	Yes
BSS84WHE3	SOT-323	P	0.3	-60	±20	-0.2	3.6	4.5		-0.9	-2	26	No

Automotive Products

Power MOSFETs

Part Number	Package	Channel	Power Rating	Drain-Source Voltage	Gate Source Voltage	Drain Current	Static Drain-Source On-Resistance			Gate Threshold Voltage (Min)	Gate Threshold Voltage (Max)	Input Capacitance	ESD Diodes (Y/N)
			P _D (W)	V _{DS} (V)	V _{GS} (V)	I _D (A)	R _{DS(ON)} (Ω) @10V	R _{DS(ON)} (Ω) @4.5V	R _{DS(ON)} (Ω) @2.5V	V _{GS(th)} (V)	V _{GS(th)} (V)	C _{iss} (pF)	
MCQ12N03HE3	SOP-8	N	1.9	30	±20	12	0.0065	0.012		1	2.5	978	No
MCAC30N04HE3	DFN5060	N	35.7	40	±20	30	0.016	0.02		1	2.5	967	No
MCAC60N04HE3	DFN5060	N	50	40	±20	60	0.007			1	2.5	2023	No
MCG30N04HE3	DFN3333	N	24	40	±20	30	0.014	0.0185		1	2.5	990	No
MCG35N04HE3	DFN3333	N	40	40	±20	35	0.008	0.013		1	2.5	2000	No
MCU40N04HE3	DPAK	N	56	40	±20	40	0.013	0.023		1	2.5	1000	No
MCACL320N04YQ	DFN5060-C	N	230	40	±20	320	0.0011			2	3	6914	No
MCAC130N04YHE3	DFN5060	N	150	40	±20	130	0.00175	0.0025		1.2	2.5	7400	No
MCACD30N04HE3	PDFN5060-8D	N+N	35	40	±20	30	0.015	0.023		1	2.5	1030	No
MCAC180N04YHE3	DFN5060	N	115	40	±20	180	0.002			2	4	4380	No
MCTL320N04YQ	TOLL-8L	N	214	40	±20	320	0.0011			2	3	6914	No
MCBS220N04YHE3	TO-263-7	N	250	40	±20	220	0.0011			2	4	7967	No
MCB180N04YHE3	D2-PAK	N	150	40	±20	180	0.0025			2	4	4650	No
MCACL280N04YHE3	DFN5060-C	N	197	40	±20	280	0.0008			2	4	5413	No
MCACD55N04YHE3	PDFN5060-8D	N+N	60	40	±20	55	0.0085			2	4	935	No
MCAC75N04YHE3	DFN5060	N	74	40	±20	75	0.0068			2	4	1000	No
MCACL220N04YHE3	DFN5060-C	N	125	40	±20	220	0.0013	0.002		1	2.5	7216	No
MCACD50N04YHE3	PDFN5060-8D	N+N	42	40	±20	50	0.0051	0.008		1	2	1392	No
MCTL270N04YHE3	TOLL-8L	N	468	40	±20	270	0.0013	0.0028		2	4	8010	No
MCB220N04YHE3	D2-PAK	N	250	40	±20	220	0.0015			2	4	7864	No
MCACL330N04YHE3	DFN5060-C	N	187.5	40	±20	330	0.001			2	4	8098	No
MCAC85N04YHE3	DFN5060	N	100	40	±20	85	0.006			2	4	1171	No
MCB2D8N04YHQ	D2-PAK	N	136	40	±20	164	0.0028			2	4	3540	No
MCAC120N04YHE3	DFN5060	N	83	40	±20	120	0.0031			2	4	2144	No
MCAC88N04YHE3	DFN5060	N	68	40	±20	88	0.0045			2	4	861	No
MCU2D8N04YHQ	DPAK	N	125	40	±20	160	0.0028			2	4	3344	No
MCAC160N04YHE3	DFN5060	N	83	40	±20	120	0.0031			2	4	2144	No
MCAC125N04YHE3	DFN5060	N	100	40	±20	125	0.0026			2	4	3540	No
MCAC95N04YHE3	DFN5060	N	75	40	±20	95	0.0032			2	4	1709	No
MCACD60N04YHE3	PDFN5060-8D	N+N	50	40	±20	60	0.0055			2	4	861	No
MCACL5290N04YHE3	DFN5060-DSC	N	205	40	±20	290	0.0011			2	4	5413	No
MCACL5330N04YAHE3	DFN5060-DSC	N	230	40	±20	330	0.0011			2	4	7349	No
MCGWF60N04YHE3	DFN3333-8(SWF)	N	93	40	±20	60	0.0039			2	4	2144	No
MCG53N06AHE3	DFN3333	N	45	60	±20	53	0.0082	0.012		1.2	2.5	1850	No
MCAC53N06YHE3	DFN5060	N	69	60	±20	53	0.0075	0.0095		1.2	2.5	2100	No
MCU20N06BHE3	DPAK	N	40	60	±20	20	0.043	0.047		1	2.5	1135	No
MCAC95N06YHE3	DFN5060	N	114	60	±20	95	0.0038	0.0045		1.2	2.2	5300	No
MCU80N06AHE3	DPAK	N	78	60	±20	80	0.0075	0.01		1.2	2.5	2100	No
MCU50N06AHE3	DPAK	N	59.5	60	±20	50	0.015	0.018		1	2.5	2515	No
MCAC30N06HE3	DFN5060	N	45	60	±20	30	0.021	0.026		1	2.5	2450	No
MCACD20N06HE3	PDFN5060-8D	N+N	35.7	60	±20	20	0.03	0.04		1	2.5	1191	No
MCACD50N06YHE3	PDFN5060-8D	N+N	69	60	±20	50	0.009	0.013		1	2.5	2100	No
MCU75N06YHE3	DPAK	N	100	60	±20	75	0.0048	0.0071		1	2.5	1698	No
MCAC65N06YHE3	DFN5060	N	100	60	±20	65	0.0052	0.0078		1	2.5	1740	No

Automotive Products

Power MOSFETs

Part Number	Package	Channel	Power Rating	Drain-Source Voltage	Gate Source Voltage	Drain Current	Static Drain-Source On-Resistance			Gate Threshold Voltage (Min)	Gate Threshold Voltage (Max)	Input Capacitance	ESD Diodes (Y/N)
			P _D (W)	V _{DS} (V)	V _{GS} (V)	I _D (A)	R _{DS(ON)} (Ω) @10V	R _{DS(ON)} (Ω) @4.5V	R _{DS(ON)} (Ω) @2.5V	V _{GS(th)} (V)	V _{GS(th)} (V)	C _{iss} (pF)	
MCG60N06YHE3	DFN3333	N	60	60	±20	60	0.006	0.0083		1	2.5	1666	No
MCACD60N06YHE3	PDFN5060-8D	N+N	50	60	±20	60	0.0065	0.009		1	2.5	1740	No
MCB200N06YHE3	D2-PAK	N	260	60	±20	200	0.0035	0.0045		1	2.5	6000	No
MCACL220N06YHE3	DFN5060-C	N	147	60	±20	220	0.0016	0.0024		1	2.5	7500	No
MCB80N06YHE3	D2-PAK	N	125	60	±20	80	0.0055	0.0065		1	2.5	1677	No
MCAC160N06YHE3	DFN5060	N	150	60	±20	160	0.0025			2	4	3586	No
MCGWF60N06YHE3	DFN3333-8(SWF)	N	60	60	±20	60	0.006	0.01		1	2.5	1666	No
MCQD05N06HE3	SOP-8	N+N	1.6	60	±20	5	0.03	0.04		1	2.5	1152	No
MCU45N10HE3	DPAK	N	73.5	100	±20	45	0.017	0.0215		1	2.5	1165	No
MCAC38N10YHE3	DFN5060	N	59	100	±20	38	0.019	0.023		1	2.5	1166	No
MCAC60N10YAEH3	DFN5060	N	88	100	±20	60	0.01	0.013		1	2.8	2330	No
MCG40N10YHE3	DFN3333	N	43	100	±20	40	0.0185	0.0225		1	2.5	1220	No
MCAC100N10YHE3	DFN5060	N	113	100	±20	100	0.0055			2	4	4700	No
MCACD20N10YHE3	PDFN5060-8D	N+N	50	100	±20	20	0.022	0.027		1	2.5	1240	No
MCTL300N10YHE3	TOLL-8L	N	375	100	±20	300	0.00155			2.1	3.9	10051	No
MCBS260N10YHE3	TO-263-7	N	375	100	±20	260	0.0018			2	4	10589	No
MCU62N10YHE3	DPAK	N	94	100	±20	62	0.011	0.016		1	2.5	1379	No
MCAC25N10YHE3	DFN5060	N	53	100	±20	25	0.033	0.06		1	2.5	509	No
MCAC70N15YHE3	DFN5060	N	150	150	±20	70	0.017			2	4	2527	No
MCB70N15YHE3	D2-PAK	N	180	150	±20	70	0.017			2	4	2517	No
MCACD12N10YHE3	PDFN5060-8D	N+P	104/69	100/-100	±20	40/-12	0.024/0.115	0.030/0.138		1.2/-1.2	2.5/-2.5	1270/1120	No
MCAC50P04HE3	DFN5060	P	96	-40	±20	-50	0.013	0.02		-1	-2.5	3302	No
MCU50P04AHE3	DPAK	P	83	-40	±20	-50	0.015	0.02		-1	-2.5	3302	No
MCGWF45P04HE3	DFN3333-8(SWF)	P	41.7	-40	±20	-45	0.013	0.017		-1	-3	3136	No
MCG25P05YHE3	DFN3333	P	74	-48	±20	-25	0.045	0.061		-1.5	-2.7	1024	No
MCG08P06HE3	DFN3333-8	P	20.8	-60	±20	-8	0.0284	0.0393		-1	-3	4306	No
MCAC80P06YHE3	DFN5060	P	120	-60	±18	-80	0.008			-2	-4	5300	No
MCU50P06YHE3	DPAK	P	89	-60	±20	-50	0.012	0.016		-1	-3	4600	No
MCGWF20P06YHE3	DFN3333-8(SWF)	P	39	-60	±20	-20	0.026	0.039		-1	-2.5	1483	No
MCG18P06YHE3	PDFN3333	P	42	-60	±20	-18	0.045	0.06		-1	-2.5	830	No
MCAC25P10YHE3	DFN5060	P	88	-100	±20	-25	0.055	0.062		-1	-2.5	2077	No
MCU18P10YHE3	DPAK	P	73.5	-100	±20	-18	0.11	0.12		-1	-2.5	1014	No
MCG15P10YHE3	DFN3333	P	50	-100	±20	-15	0.11	0.12		-1	-2.5	1100	No
MCU15P10YHE3	DPAK	P	50	-100	±20	-15	0.12			-2	-4	920	No
MCG15P10YHE3	DFN3333	P	50	-100	±20	-15	0.11	0.12		-1.00	-2.50	1100	No
MCU15P10YHE3	DPAK	P	50	-100	±20	-15	0.12			-2.00	-4.00	920	No

Automotive Products

ESD Protection

Part Number	Package	Protected Lines	Configuration	Peak Power Dissipation	Reverse Standoff Voltage	Maximum Reverse Leakage Current	Test Current	Breakdown Voltage		Maximum Clamping Voltage	Maximum Peak Pulse Current	Junction Capacitance
				P _{PK} (W)	V _{RWM} (V)	I _R (uA)	I _T (mA)	V _{BR} (V) Min	V _{BR} (V) Max	V _C (V)	I _{PP} (A)	C _J (pF)
ESDL3V3LBHE3	DFN1006-2L	1	Bidirectional	60	3.3	0.1	1	4.5	6.5	9	8	25
ESDSB3V3LBHE3	DFN1006-2L	1	Bidirectional	90	3.3	1	1	3.5	6	10	9	25
ESDULC3V3LBHE3	DFN1006-2L	1	Bidirectional	80	3.3	0.1	1	4.8	7	20	4	0.65
ESD3V3T2BHE3	SOT-23	2	Bidirectional	400	3.3	0.5	1	5	7	16	25	100
ESDSL0524DFN10HE3	DFN-10	4	Unidirectional	60	5	0.1	1	6.5	9	13	5	0.6
ESDSC5V0LBHE3	DFN1006-2	1	Bidirectional	100	5	0.5	1	6	9	20	4	0.35
ESDLC5V0LBHE3	DFN1006-2L	1	Bidirectional	80	5	0.1	1	6	8	10	8	15
ESDSB5V0LBHE3	DFN1006-2L	1	Bidirectional	70	5	1	1	5.7	8	10	7	20
ESDULC5V0LBHE3	DFN1006-2L	1	Bidirectional	100	5	0.1	1	6	9.5	25	4	0.6
ESDULC5V0PUBWFHE3	DFN1110-3(SWF)	2	Bidirectional	56	5	0.2	1	6		14	4	0.3
ESD5V0D3BHE3	SOD-323	1	Bidirectional	400	5	1		6		17	24	100
ESD5V0D3HE3	SOD-323	1	Unidirectional	300	5	1	1	6.2	7.5	15	20	160
ESDH5V0D3HE3	SOD-323	1	Unidirectional	600	5	1	1	6.2	7.5	20	30	220
ESDHLC5V0D3HE3	SOD-323	1	Unidirectional	600	5	0.5	1	6		28	24	2.5
ESDL5V0D3BHE3	SOD-323	1	Bidirectional	60	5	0.1	1	5.5	8	10	6	18
ESDSB5V0D3BHE3	SOD-323	1	Bidirectional	400	5	1		6		17	24	100
ESD5V0D5HE3	SOD-523	1	Unidirectional	300	5	1	1	6.2	7.5	15	20	160
ESDSBL5V0D5BHE3	SOD-523	1	Bidirectional	70	5	1	1	5.7	8	10	7	20
ESD5V0ET2HE3	SOT-23	2	Unidirectional	300	5	1	1	6.2	7.5	15	20	160
ESD5V0T2HE3	SOT-23	2	Unidirectional	300	5	1	1	6.2	7.5	15	20	160
ESDSB5V0T2BHE3	SOT-23	2	Bidirectional	400	5	1		6	7.5	17	24	100
ESD7V0LBHE3	DFN1006-2L	1	Bidirectional	90	7	0.5	1	7.5	10.5	15	6	23
ESD7V0T2BHE3	SOT-23	2	Bidirectional	255	7	0.5	1	7	10	15	17	63
ESDLC8V0LBHE3	DFN1006-2L	1	Bidirectional	140	8	0.2	1	9		18	8	10
ESDULC8V0LBHE3	DFN1006-2L	1	Bidirectional	90	8	0.2	1	9.5	11.5	26	3.5	0.5
ESD12VLBHE3	DFN1006-2L	1	Bidirectional	150	12	0.5	1	13.5	16.5	30	5	12
ESDLC12VLBHE3	DFN1006-2L	1	Bidirectional	100	12	0.2	1	13.3		20	5	10
ESD12VD3BHE3	SOD-323	1	Bidirectional	280	12	1		13.3		28	10	50
ESD12VD3HE3	SOD-323	1	Unidirectional	280	12	1	1	13.3	16.5	28	10	70
ESD12VD5HE3	SOD-523	1	Unidirectional	280	12	1	1	13.3	16.5	28	10	70
ESD12VET2HE3	SOT-23	2	Unidirectional	280	12	1	1	13.1	16.5	28	10	70
ESD12VT2BHE3	SOT-23	2	Bidirectional	300	12	0.1	1	13.5	16.7	30	10	35
ESD12VT2HE3	SOT-23	2	Unidirectional	280	12	1	1	13.1	16.5	28	10	70
ESD15VLBHE3	DFN1006-2L	1	Bidirectional	140	15	0.5	1	15.5	19.5	35	4	10
ESD1524D3B	SOD-323	1	Asymmetric	160	15	0.05	1	17.1		35	5	13
ESD1524D3BHE3	SOD-323	1	Asymmetric	160	15	0.05	1	17.1		50	5	17
ESD1524D3BHE3A	SOD-323	1	Asymmetric	160	15	0.05		17.1	20.3	35	5	30
ESD15VD3BHE3	SOD-323	1	Bidirectional	250	15	1		16.7		28.5	5	45
ESD15VD3HE3	SOD-323	1	Unidirectional	250	15	1	1	16.5	19	35	8	55
ESD15VD5HE3	SOD-523	1	Unidirectional	250	15	1	1	16.5	19	35	8	55
ESD15VET2HE3	SOT-23	2	Unidirectional	280	15	1	1	16.1	19	35	8	55
ESD15VT2BHE3	SOT-23	2	Bidirectional	270	15	0.5	1	16	19	30	9	26
ESD15VT2HE3	SOT-23	2	Unidirectional	280	15	1	1	16.1	19	35	8	55
MMBZ20VAHE3	SOT-23	2	Unidirectional	40	17	0.05	1	19	21	28	1.4	

Automotive Products

ESD Protection

Part Number	Package	Protected Lines	Configuration	Peak Power Dissipation	Reverse Standoff Voltage	Maximum Reverse Leakage Current	Test Current	Breakdown Voltage		Maximum Clamping Voltage	Maximum Peak Pulse Current	Junction Capacitance
				P _{PK} (W)	V _{RWM} (V)	I _R (uA)	I _T (mA)	V _{BR} (V) Min	V _{BR} (V) Max	V _C (V)	I _{PP} (A)	C _J (pF)
MMBZ20VCHE3	SOT-23	2	Unidirectional	40	17	0.05	1	19	21	28	1.4	
MMBZ27VAHE3	SOT-23	2	Unidirectional	40	22	0.05	1	25.65	28.35	40	1	
MMBZ27VCHE3	SOT-23	2	Unidirectional	40	22	0.05	1	25.65	28.35	40	1	
ESD24VLBHE3	DFN1006-2L	1	Bidirectional	150	24	0.5	1	25.5	29.5	45	3.5	8.5
ESDSBLC24VPUBWFHE3	DFN1110-3(SWF)	2	Bidirectional	170	24	0.2	1	26.5		34	5	5
ESDSBLC2424P5WFHE3	DFN2510-10(SWF)	4	Bidirectional	170	24	0.2	1	26.5	36	35	5	9
ESD24VD3BHE3	SOD-323	1	Bidirectional	300	24	1		26.7		44	7	40
ESD24VD3HE3	SOD-323	1	Unidirectional	300	24	1	1	26.7		44	7	50
ESD24VD5HE3	SOD-523	1	Unidirectional	300	24	1	1	26.7		44	7	50
ESD24VET2HE3	SOT-23	2	Unidirectional	300	24	1	1	26.7		44	7	50
ESD24VT2BHE3	SOT-23	2	Bidirectional	308	24	0.1	1	26.2	32	44	7	30
ESD24VT2HE3	SOT-23	2	Unidirectional	300	24	1	1	26.7		44	7	50
HSM24BHE3	SOT-23	2	Bidirectional	384	24	0.1		26.3	30.3	48	8	32
SM24BHE3	SOT-23	2	Bidirectional	300	24	0.2	1	27		60	5	15
SM24BHE3A	SOT-23	2	Bidirectional	300	24	0.2	1	27		50	4	20
ESD27VLBHE3	DFN1006-2L	1	Bidirectional	180	27	0.5	1	31	38	75	2.5	6.5
ESD27VD3BHE3	SOD-323	1	Bidirectional	260	27	0.5	1	28.5		65	4	20
ESD27VT2BHE3	SOT-23	2	Bidirectional	420	27	0.5	1	31	38	70	6	13
ESD36VLBHE3	DFN1006-2L	1	Bidirectional	200	36	0.5	1	38	48	80	2.5	6
ESD36VD3BHE3	SOD-323	1	Bidirectional	350	36	1		40		75	5	35
ESD36VD3HE3	SOD-323	1	Unidirectional	350	36	1	1	40	44	75	5	35
ESD36VD5HE3	SOD-523	1	Unidirectional	350	36	1	1	40	44	75	5	35
ESD36VET2HE3	SOT-23	2	Unidirectional	350	36	1	1	40	44.5	75	5	35
ESD36VT2BHE3	SOT-23	2	Bidirectional	450	36	0.5	1	38	48	90	5	30
ESD36VT2HE3	SOT-23	2	Unidirectional	350	36	1	1	40	44.5	75	5	35

Automotive Products

Power TVS

Part Number	Configuration	Package	Peak Pluse Power Dissipation	Reverse Standoff Voltage	Reverse Leakage	Max. Clamping Voltage	Peak Pulse Current	Breakdown Voltage		Test Current
			P _{PK} (W)	V _{RWM} (V)	I _R (uA)	V _C (V)	I _{PP} (A)	V _{BR} (V) Min	V _{BR} (V) Max	I _T (mA)
SMF5.0AHE3~SMF100AHE3	Unidirectional	SOD-123FL	200	5~100	1~400	9.2~162	1.1~21.7	6.4~111	7.07~123	1~10
SMF5.0AQ~SMF100AQ	Unidirectional	SOD-123FL	200	5~100	1~400	9.2~162	1.23~21.74	6.4~111	7.07~123	1~10
SM4F6.0AHE3~SM4F100AHE3	Unidirectional	SOD-123FL	400	6~100	1~800	10.3~162	2.5~38.8	6.67~111	7.37~123	1~10
SM4F6.0CAHE3~SM4F45CAHE3	Bidirectional	SOD-123FL	400	6~45	1~800	10.3~72.7	5.5~38.8	6.67~50	7.37~55.3	1~10
SMAJ5.0AHE3~SMAJ90AHE3	Unidirectional	SMA	400	5~190	1~800	9.2~308	1.3~43.4	6.4~211	7.07~232	1~10
SMAJ5.0CAHE3~SMAJ190CAHE3	Bidirectional	SMA	400	5~190	1~800	9.2~308	1.3~43.4	6.4~211	7.07~232	1~10
SMAJ5.0AQ~SMAJ90AQ	Unidirectional	SMA	400	5~190	1~800	9.2~307.8	1.3~43.4	6.4~211	7.07~232	1~10
SMAJ5.0CAQ~SMAJ190CAQ	Bidirectional	SMA	400	5~190	1~800	9.2~307.8	1.3~43.4	6.4~211	7.07~232	1~10
SMAJP4KE12AHE3~SMAJP4KE220AHE3	Unidirectional	SMA	400	10.2~185	1~5	16.7~328	1.2~24.6	11.4~209	12.6~231	1
SMAJP4KE12CAHE3~SMAJP4KE220CAHE3	Bidirectional	SMA	400	10.2~185	1~5	16.7~328	1.2~24.6	11.4~209	12.6~231	1
SMAJP4KE6.8AQ~SMAJP4KE220AQ	Unidirectional	SMA	400	5.8~185	1~1000	10.5~328	1.2~38.1	6.46~209	7.14~231	1~10
SMAJP4KE6.8CAQ~SMAJP4KE220CAQ	Bidirectional	SMA	400	5.8~185	1~1000	10.5~328	1.2~38.1	6.46~209	7.14~231	1~10
SMA6J10AHE3~SMA6J100AHE3	Unidirectional	SMA	600	10~100	1~5	17~162	3.7~35.3	11.1~111	12.3~123	1
SMA6J10CAHE3~SMA6J40CAHE3	Bidirectional	SMA	600	10~40	1~5	17~64.5	9.3~35.3	11.1~44.4	12.3~49.1	1
SMA6J10AQ~SMA6J100AQ	Unidirectional	SMA	600	10~100	1~5	17~162	3.7~35.3	11.1~111	12.3~123	1
SMA6J10CAQ~SMA6J20CAQ	Bidirectional	SMA	600	10~20	1~5	17~32.4	18.5~35.3	11.1~22.2	12.3~24.5	1
SMBJ5.0AHE3~SMBJ190AHE3	Unidirectional	SMB	600	5~190	1~800	9.2~307.8	1.9~65.2	6.4~211	7.07~232	1~10
SMBJ5.0CAHE3~SMBJ190CAHE3	Bidirectional	SMB	600	5~190	1~800	9.2~307.8	1.9~65.2	6.4~211	7.07~232	1~10
SMBJ5.0AQ~SMBJ190AQ	Unidirectional	SMB	600	5~190	1~800	9.2~307.8	2~65.2	6.4~211	7.07~232	1~10
SMBJ5.0CAQ~SMBJ190CAQ	Bidirectional	SMB	600	5~190	1~800	9.2~307.8	2~65.2	6.4~211	7.07~232	1~10
SMBJP6KE12AHE3~SMBJP6KE220AHE3	Unidirectional	SMB	600	10.2~185	1~5	16.7~328	1.9~36.5	11.4~209	12.6~231	1
SMBJP6KE12CAHE3~SMBJP6KE220CAHE3	Bidirectional	SMB	600	10.2~185	1~5	16.7~328	1.9~36.5	11.4~209	12.6~231	1
SMBJP6KE6.8AQ~SMBJP6KE220AQ	Unidirectional	SMB	600	5.8~185	1~1000	10.5~328	1.8~57.1	6.46~209	7.14~231	1~10
SMBJP6KE6.8CAQ~SMBJP6KE220CAQ	Bidirectional	SMB	600	5.8~185	1~1000	10.5~328	1.8~57.1	6.46~209	7.14~231	1~10
SMCJ1.5KE12AHE3~SMCJ1.5KE220AHE3	Unidirectional	SMC	1500	10.2~185	1~5	16.7~328	4.6~91	11.4~209	12.6~231	1
SMCJ1.5KE12CAHE3~SMCJ1.5KE220CAHE3	Bidirectional	SMC	1500	10.2~185	1~5	16.7~328	4.6~91	11.4~209	12.6~231	1
SMCJ1.5KE6.8AQ~SMCJ1.5KE220AQ	Unidirectional	SMC	1500	5.8~185	1~1000	10.5~328	4.6~142.9	6.46~209	7.14~231	1~10
SMCJ1.5KE6.8CAQ~SMCJ1.5KE220CAQ	Bidirectional	SMC	1500	5.8~185	1~1000	10.5~328	4.6~142.9	6.46~209	7.14~231	1~10
SMCJ10AHE3~SMCJ190AHE3	Unidirectional	SMC	1500	10~190	1~5	17~307.8	4.9~88.2	11.1~211	12.3~232	1
SMCJ10CAHE3~SMCJ190CAHE3	Bidirectional	SMC	1500	10~190	1~5	17~307.8	4.9~88.2	11.1~211	12.3~232	1
SMCJ5.0AQ~SMCJ190AQ	Unidirectional	SMC	1500	5~190	1~5	9.2~307.8	4.9~163	6.4~211	7.07~232	1~10
SMCJ5.0CAQ~SMCJ190CAQ	Bidirectional	SMC	1500	5~190	1~5	9.2~307.8	4.9~163	6.4~211	7.07~232	1~10
SMLJ10AHE3A~SMLJ48AHE3A	Unidirectional	SMC	3000	10~48	1~5	17~77.4	38.8~176.4	11.1~53.3	12.3~58.9	1
SMLJ10CAHE3A~SMLJ48CAHE3A	Bidirectional	SMC	3000	10~48	1~5	17~77.4	38.8~176.4	11.1~53.3	12.3~58.9	1
SMLJ10AHE3~SMLJ43AHE3	Unidirectional	SMC	3000	10~43	2~15	17~69.4	43.2~176.4	11.1~47.8	12.3~52.8	5
SMLJ10CAHE3~SMLJ43CAHE3	Bidirectional	SMC	3000	10~43	2~15	17~69.4	43.2~176.4	11.1~47.8	12.3~52.8	5
SMLJ5.0AQ~SMLJ48AQ	Unidirectional	SMC	3000	5~48	1~1000	9.2~77.4	38.76~326.09	6.4~53.3	7.07~58.9	1~10
SMLJ5.0CAQ~SMLJ48CAQ	Bidirectional	SMC	3000	5~48	1~1000	9.2~77.4	38.76~326.09	6.4~53.3	7.07~58.9	1~10
SM5S10A~SM5S43A	Unidirectional	DO-218AB	3600	10~43	10~15	17~69.4	52~212	11.1~47.8	12.3~52.8	5
SM6S10A~SM6S43A	Unidirectional	DO-218AB	4600	10~43	10~15	17~69.4	66~271	11.1~47.8	12.3~52.8	5
5.0SMLJ5.0AHE3~5.0SMLJ85AHE3	Unidirectional	SMC	5000	5~85	2~1000	9.2~137	36.5~543.6	6.4~94.4	7~104	1~10
5.0SMLJ5.0CAHE3~5.0SMLJ85CAHE3	Bidirectional	SMC	5000	5~85	2~1000	9.2~137	36.5~543.6	6.4~94.4	7~104	1~10
SM8S10A~SM8S43A	Unidirectional	DO-218AB	6600	10~43	10~15	17~69.4	95.1~388	11.1~47.8	12.3~52.8	5
SM8S10AHE3~SM8S43AHE3	Unidirectional	DO-218AB	6600	10~43	10~15	17~69.4	95.1~388	11.1~47.8	12.3~52.8	5
SM8S14CA~SM8S43CA	Bidirectional	DO-218AB	6600	14~43	10	23.2~69.4	95.1~284	15.6~47.8	17.2~52.8	5

Automotive Products

IGBT Discrete

Part Number	Package	Configuration	Voltage Class Maximum	IC @ 100° Maximum	VCE(sat)	Eon	Eoff Hard Switching
			(V)	(A)	(V)	(mJ)	(mJ)
MIW40N120FLAHE3	TO-247AB	Single	1200	40	2.3	3.8	1.7

Automotive Products

Zener Diodes

Part Number	Package	Power Rating	Maximum Reverse Leakage Current		Nominal Zener Voltage		Maximum Zener Impedance		
		P _o (W)	I _r (mA)	V _r (V)	V _z (V)	I _{zt} (mA)	Z _{zt} (Ω)	Z _{zk} (Ω)	I _{zk} (mA)
BZT52C2V4L3PHE3~BZT52C39L3PHE3	DFN1006-2L	0.15	0.0001~0.05	1~35	2.4~47	2~5	10~130	80~750	0.5~1
BZX584B3V6HE3~BZX584B36HE3	SOD-523	0.15	0.0001~0.005	1~25.2	3.6~36	2~5	10~90	80~600	0.5~1
BZX584C2V4HE3~BZX584C39HE3	SOD-523	0.15	0.0001~0.05	1~27.3	2.4~39	2~5	10~130	80~600	0.5~1
BZT52B3V6JSHE3~BZT52B47JSHE3	SOD-323	0.20	0.000045~0.0045	1~33	3.6~47	5	10~160	80~564	0.5~1
AZ23C2V4WHE3~AZ23C39WHE3	SOT-323	0.20	0.0001~0.05	1~27.3	2.4~39	2~5	10~130	80~600	0.5~1
BZX84C2V4WHE3~BZX84C39WHE3	SOT-323	0.20	0.0001~0.05	1~27.3	2.4~39	2~5	10~130	80~600	0.5~1
BZT52C2V4SHE3~BZT52C47SHE3	SOD-323	0.30	0.0001~0.05	1~35	2.4~47	2~5	10~130	80~750	0.5~1
BZT52C75SHE3	SOD-323	0.30	0.00005	52.5	75	2	255	500	0.5
AZ23B3V6HE3~AZ23B39HE3	SOT-23	0.30	0.0001~0.005	1~27.3	3.6~39	2~5	10~130	80~600	0.5~1
AZ23C2V4HE3~AZ23C39HE3	SOT-23	0.30	0.0001~0.05	1~27.3	2.4~39	2~5	10~130	80~600	0.5~1
DZ23C2V4HE3~DZ23C47HE3	SOT-23	0.30	0.0001~0.1	0.8~35	2.4~47	5	7~100	80~750	1
BZX84B4V3HE3~BZX84B36HE3	SOT-23	0.35	0.0001~0.003	1~25.2	4.3~36	2~5	10~90	80~600	0.5~1
BZX84C2V4HE3~BZX84C47HE3	SOT-23	0.35	0.0001~0.05	1~32.9	2.4~47	2~5	10~170	80~600	0.5~1
BZT52B3V6HE3~BZT52B47HE3	SOD-123	0.50	0.0001~0.015	0.8~35	3.6~47	2~5	7~100	80~600	1
BZT52C2V4HE3~BZT52C47HE3	SOD-123	0.50	0.0001~0.05	1~35	2.4~47	2~5	10~130	80~750	0.5~1
BZT52C75HE3	SOD-123	0.50	0.00005	52.5	75	2	255	500	0.5
MMSZ5221BHE3~MMSZ5261BHE3	SOD-123	0.50	0.0001~0.1	1~36	2.4~47	2.7~20	5~105	500~2000	0.25
SMA1EZ110D5HE3~SMA1EZ330D5HE3	SMA	1.00	0.0001	83.6~250.2	110~330	0.7~2.3	450~2500	4000~9990	0.25
SMAJ4735AQ~SMAJ4764AQ	SMA	1.00	0.005~0.01	3~76	6.2~100	2.5~41	2~350	700~3000	0.25~1
SMAJ4740AHE3~SMAJ4764AHE3	SMA	1.00	0.0001~0.0005	7.6~76	10~100	2.5~25	7~350	700~3000	0.25
SMAZ10HE3~SMAZ39HE3	SMA	1.00	0.0005~0.001	7.6~29.6	10~39	10~50	4~40	150~450	1
DFLZ6V2Q~DFLZ100Q	SOD-123FL	1.00	0.005~0.01	3~76	6.2~100	2.5~41	2~350	700~3000	0.25~1
SMAJ5921BQ~SMAJ5956BQ	SMA	1.50	0.0005~0.01	5.2~152	6.8~200	1.9~55.1	2.5~1200	200~8000	0.25~1
SMAJ5925BHE3~SMAJ5956BHE3	SMA	1.50	0.001~0.005	8~152	10~200	1.9~37.5	4.5~1200	500~8000	0.25
SMBJ5925BHE3~SMBJ5956BHE3	SMB	1.50	0.001~0.005	8~152	10~200	1.9~37.5	4.5~1200	500~8000	0.25
SMA2EZ10D5HE3~SMA2EZ75D5HE3	SMA	2.00	0.0005~0.003	7.6~56	10~75	6.7~50	3.5~90	700~2000	0.25
SMA2Z6.8AQ~SMA2Z220AQ	SMA	2.00	0.0005~0.01	4~167	6.8~220	2~73.5	2~2000	700~9990	0.25~1
SMB2EZ10D5HE3~SMB2EZ75D5HE3	SMB	2.00	0.0005~0.003	7.6~56	10~75	6.7~50	3.5~90	700~2000	0.25
3SMAJ5925BHE3~3SMAJ5956BHE3	SMA	3.00	0.001~0.005	8~152	10~200	1.9~37.5	4.5~1200	500~8000	0.25
3SMBJ5921BQ~3SMBJ5958BQ	SMB	3.00	0.0005~0.01	4~178	6.8~220	3.3~110	2~1600	700~8500	0.25~1
3SMBJ5925BHE3~3SMBJ5956BHE3	SMB	3.00	0.001~0.005	8~152	10~200	1.9~37.5	4.5~1200	500~8000	0.25
SMBJ5347BHE3~SMBJ5388BHE3	SMB	5.00	0.0005~0.005	7.6~152	10~200	5~125	2~480	75~1850	1

Automotive Products

Switching Diodes

Part Number	Package	Average Forward Current	Working Peak Reverse Voltage	Peak Forward Surge Current	Maximum Forward Voltage	Reverse Voltage Leakage Current	At Rated Forward Current	Maximum DC Blocking Voltage	Reverse Recovery Time
		I _{FAV} (A)	V _{RWM} (V)	I _{FSM} (A)	V _F (V)	I _R (uA)	I _{FM} (A)	V _R (V)	T _{RR} (us)
BAS16WHE3	SOD-123	0.100	75	1	1.250	1.000	0.150	75	0.006
BAS16WXHE3	SOD-323	0.100	75	1	1.250	1.000	0.150	75	0.006
BAS16WTHE3	SOT-323	0.150	75	2	1.000	1.000	0.050	75	0.004
BAW56WTHE3	SOT-323	0.150	75	2	1.000	2.500	0.050	75	0.004
MMBD4148WTHE3	SOT-323	0.150	75	2	1.000	1.000	0.050	75	0.004
1SS355HE3	SOD-323	0.150	90	0.5	1.200	0.100	0.100	80	0.004
1N4148WHE3	SOD-123	0.150	100	1	0.715	50.000	0.001	75	0.004
1N4148WXHE3	SOD-323	0.150	100	2	1.000	1.000	0.050	75	0.004
1N4148XHE3	SOD-523	0.150	100	2	1.250	1.000	0.150	75	0.004
BAV70WTHE3	SOT-323	0.150	100	1	1.250	2.000	0.150	75	0.004
BAV99WTHE3	SOT-323	0.150	100	2	1.000	2.500	0.050	75	0.004
BAV199WTHE3	SOT-323	0.160	85	4	1.000	0.005	0.010	85	3.000
BAS716HE3	SOD-523	0.200	75	1	1.000	0.005	0.010	75	3.000
BAS416HE3	SOD-323	0.200	100	4	1.000	0.005	0.010	75	3.000
MMBD4148HE3	SOT-23	0.200	100	1	0.855	0.025	0.100	20	0.004
BAS19WTHE3	SOT-323	0.200	100	-	1.000	0.100	0.100	100	0.050
BAV19WSHE3	SOD-323	0.200	120	9	1.250	0.100	0.200	100	0.050
BAS19HE3	SOT-23	0.200	120	9	1.250	0.100	0.225	120	0.050
BAS20WTHE3	SOT-323	0.200	150	-	1.000	0.100	0.100	150	0.050
BAV20WSHE3	SOD-323	0.200	200	9	1.250	0.100	0.200	150	0.050
BAS20HE3	SOT-23	0.200	200	9	1.250	0.100	0.225	200	0.050
BAS21WTHE3	SOT-323	0.200	200	-	1.000	0.100	0.100	200	0.050
BAV21WSHE3	SOD-323	0.200	250	9	1.250	0.100	0.200	200	0.050
BAS21XHE3	SOD-523	0.200	250	2	1.100	0.150	0.100	250	0.050
BAS21HE3	SOT-23	0.200	250	9	1.250	0.100	0.225	250	0.050
BAV116WHE3	SOD-123	0.215	85	4	1.250	0.005	0.150	75	3.000
BAV199HE3	SOT-23	0.215	85	-	1.250	0.005	0.150	75	3.000
BAS16HE3	SOT-23	0.215	100	1	1.250	1.000	0.100	75	0.004
BAV170HE3	SOT-23	0.215	100	4	0.900	0.005	0.001	75	3.000
BAV70HE3	SOT-23	0.215	100	1	0.855	1.000	0.010	75	0.004
BAV99HE3	SOT-23	0.215	100	1	0.855	2.500	0.010	75	0.004
BAV23AHE3	SOT-23	0.225	200	9	1.250	0.100	0.200	250	0.050
BAV23CHE3	SOT-23	0.225	200	9	1.250	0.100	0.200	250	0.050
BAV23SHE3	SOT-23	0.225	200	9	1.250	0.100	0.200	250	0.050
BAV23SWTHE3	SOT-323	0.225	250	1.7	1.000	0.100	0.100	250	0.050
1N4448WXHE3	SOD-323	0.250	75	2	1.000	2.500	0.100	75	0.004
BAW56HE3	SOT-23	0.250	75	1	0.855	2.500	0.010	75	0.004
MMBD4448HSDWHE3	SOT-363	0.250	80	4	1.000	0.100	0.050	70	0.004
MMBD4448HTWHE3	SOT-363	0.250	80	4	1.000	0.100	0.050	70	0.004
1N4448WHE3	SOD-123	0.250	100	2	1.000	0.025	0.100	20	0.004
BAS316HE3	SOD-323	0.250	100	4	0.715	1.000	0.001	75	0.004
BAS516HE3	SOD-523	0.250	100	0.5	0.715	0.030	0.001	25	0.004
BAV19WHE3	SOD-123	0.250	120	1	1.000	0.100	0.100	100	0.050
BAV20WHE3	SOD-123	0.250	200	1	1.000	0.100	0.100	150	0.050
BAV21WHE3	SOD-123	0.250	250	1	1.000	0.100	0.100	200	0.050

Automotive Products

Small Signal Schottky Diodes

Part Number	Package	Average Forward Current	Working Peak Reverse Voltage	Peak Forward Surge Current	Maximum Forward Voltage	Reverse Voltage Leakage Current	At Rated Forward Current	Maximum DC Blocking Voltage	Low VF
		I _F (A)	V _{RWM} (V)	I _{FSM} (A)	V _F (V)	I _R (uA)	I _{FM} (A)	V _R (V)	
SD101CWHE3	SOD-123	0.015	40	2.00	0.39	0.20	0.001	30	No
SD101CWSHE3	SOD-323	0.015	40	2.00	0.39	0.20	0.001	30	No
SD101BWHE3	SOD-123	0.015	50	2.00	0.40	0.20	0.001	40	No
SD101BWSHE3	SOD-323	0.015	50	2.00	0.40	0.20	0.001	40	No
SD101AWHE3	SOD-123	0.015	60	2.00	0.41	0.20	0.001	50	No
SD101AWSHE3	SOD-323	0.015	60	2.00	0.41	0.20	0.001	50	No
RB751V-40HE3	SOD-323	0.030	40	0.20	0.37	0.50	0.001	30	No
RB751S-40HE3	SOD-523	0.030	40	1.00	0.37	0.50	0.001	30	No
BAS70-04HE3	SOT-23	0.070	70	0.10	1.00	0.01	0.015	50	No
BAS70-05HE3	SOT-23	0.070	70	0.10	1.00	0.01	0.015	50	No
BAS70-06HE3	SOT-23	0.070	70	0.10	1.00	0.01	0.015	50	No
BAS70HE3	SOT-23	0.070	70	0.10	1.00	0.01	0.015	50	No
BAS70WT-04HE3	SOT-323	0.070	70	0.10	1.00	0.20	0.015	50	No
BAS70WT-05HE3	SOT-323	0.070	70	0.10	1.00	0.20	0.015	50	No
BAS70WT-06HE3	SOT-323	0.070	70	0.10	1.00	0.20	0.015	50	No
BAS70WTHE3	SOT-323	0.070	70	0.10	1.00	0.20	0.015	50	No
BAS40WT-04HE3	SOT-323	0.120	40	0.60	1.00	0.20	0.040	30	No
BAS40WT-05HE3	SOT-323	0.120	40	0.60	1.00	0.20	0.040	30	No
BAS40WT-06HE3	SOT-323	0.120	40	0.60	1.00	0.20	0.040	30	No
BAS40WTHE3	SOT-323	0.120	40	0.60	1.00	0.20	0.040	30	No
BAT46WHE3	SOD-123	0.150	100	0.75	1.00	2.00	0.250	75	No
BAT46WSHE3	SOD-323	0.150	100	0.75	1.00	0.50	0.250	10	No
BAT54WHE3	SOD-123	0.200	30	0.60	1.00	2.00	0.100	25	No
BAT54WSHE3	SOD-323	0.200	30	0.60	1.00	2.00	0.100	25	No
BAT54WXHE3	SOD-523	0.200	30	3.00	1.00	2.00	0.100	25	No
RB520S-30HE3	SOD-523	0.200	30	1.00	0.60	1.00	0.200	10	No
RB521S-30HE3	SOD-523	0.200	30	1.00	0.50	30.00	0.200	10	No
BAT54AHE3	SOT-23	0.200	30	0.60	0.40	2.00	0.010	25	No
BAT54CHE3	SOT-23	0.200	30	0.60	0.40	2.00	0.010	25	No
BAT54HE3	SOT-23	0.200	30	0.60	0.40	2.00	0.010	25	No
BAT54SHE3	SOT-23	0.200	30	0.60	0.40	2.00	0.010	25	No
BAT54AWTHE3	SOT-323	0.200	30	0.60	0.80	2.00	0.100	25	No
BAT54CWTHE3	SOT-323	0.200	30	0.60	0.80	2.00	0.100	25	No
BAT54SWTHE3	SOT-323	0.200	30	0.60	0.80	2.00	0.100	25	No
BAT54WTHE3	SOT-323	0.200	30	0.60	0.80	2.00	0.100	25	No
BAS40WXHE3	SOD-323	0.200	40	0.60	1.00	0.50	0.040	30	No
RB521S-40HE3	SOD-523	0.200	40	1.00	0.59	90.00	0.200	40	No
BAS40-04HE3	SOT-23	0.200	40	0.60	1.00	0.01	0.040	30	No
BAS40-05HE3	SOT-23	0.200	40	0.60	1.00	0.01	0.040	30	No
BAS40-06HE3	SOT-23	0.200	40	0.60	1.00	0.01	0.040	30	No
BAS40HE3	SOT-23	0.200	40	0.60	1.00	0.01	0.040	30	No
BAT64-04HE3	SOT-23	0.225	40	0.80	0.43	2.00	0.010	25	No
BAT64-05HE3	SOT-23	0.225	40	0.80	0.43	2.00	0.010	25	No
BAT64-06HE3	SOT-23	0.225	40	0.80	0.43	2.00	0.010	25	No

Automotive Products

Small Signal Schottky Diodes

Part Number	Package	Average Forward Current	Working Peak Reverse Voltage	Peak Forward Surge Current	Maximum Forward Voltage	Reverse Voltage Leakage Current	At Rated Forward Current	Maximum DC Blocking Voltage	Low VF
		I _F (A)	V _{RWM} (V)	I _{FSM} (A)	V _F (V)	I _R (uA)	I _{FM} (A)	V _R (V)	
RB520S-40HE3	SOD-523	0.250	40	1.00	0.55	1.00	0.100	10	No
SD103CWHE3	SOD-123	0.350	20	1.50	0.37	5.00	0.020	10	No
SD103CWSHE3	SOD-323	0.350	20	1.50	0.37	5.00	0.020	10	No
SD103BWHE3	SOD-123	0.350	30	1.50	0.37	5.00	0.020	20	No
SD103BWSHE3	SOD-323	0.350	30	1.50	0.37	5.00	0.020	20	No
SD103AWHE3	SOD-123	0.350	40	1.50	0.37	5.00	0.020	30	No
SD103AWSHE3	SOD-323	0.350	40	1.50	0.37	5.00	0.020	30	No
B0530WSHE3	SOD-323	0.500	30	5.00	0.55	300.00	0.500	30	No
RB551V-30HE3	SOD-323	0.500	30	2.00	0.47	100.00	0.500	20	No
B0540WHE3	SOD-123	0.500	40	5.50	0.55	80.00	0.500	40	No
B0540WSHE3	SOD-323	0.500	40	5.00	0.55	80.00	0.500	40	No
B5817WHE3	SOD-123	1.000	20	10.00	0.45	200.00	1.000	20	No
B5817WSHE3	SOD-323	1.000	20	10.00	0.45	200.00	1.000	20	No
B5818WHE3	SOD-123	1.000	30	10.00	0.55	40.00	1.000	30	No
B5818WSHE3	SOD-323	1.000	30	10.00	0.55	40.00	1.000	30	No
B5819WHE3	SOD-123	1.000	40	10.00	0.60	40.00	1.000	40	No
B5819WSHE3	SOD-323	1.000	40	10.00	0.60	40.00	1.000	40	No

Automotive Products

Standard Recovery Rectifiers

Part Number	Package	Average Forward Current	Working Peak Reverse Voltage	Peak Forward Surge Current	Maximum Forward Voltage	Reverse Voltage Leakage Current	At Rated Forward Current	Maximum DC Blocking Voltage	Reverse Recovery Time
		I _{F(AV)} (A)	V _{RWM} (V)	I _{FSM} (A)	V _F (V)	I _R (uA)	I _{FM} (A)	V _R (V)	T _{RR} (μs)
GS1AHE3-L	SMA	1	50	40	1.00	5	1	50	2
GS1DHE3-L	SMA	1	200	40	1.00	5	1	200	2
GS1GHE3-L	SMA	1	400	40	1.00	5	1	400	2
GS1JHE3-L	SMA	1	600	40	1.00	5	1	600	2
GS1MHE3-L	SMA	1	1000	40	1.00	5	1	1000	2
SM4002PLHE3	SOD-123FL	1	100	30	1.10	1	1	100	3
SM4003PLHE3	SOD-123FL	1	200	30	1.10	1	1	200	3
SM4004PLHE3	SOD-123FL	1	400	30	1.10	1	1	400	3
SM4007PLHE3	SOD-123FL	1	1000	30	1.10	1	1	1000	3
GS2DHE3-L	SMA	2	200	50	1.10	5	2	200	4
GS2GHE3-L	SMA	2	400	50	1.10	5	2	400	4
GS2JHE3-L	SMA	2	600	50	1.10	5	2	600	4
GS2MHE3-L	SMA	2	1000	50	1.10	5	2	1000	4
S2GHE3-L	SMB	2	400	50	1.15	5	2	400	-
S2JHE3-L	SMB	2	600	50	1.15	5	2	600	-
S2MHE3-L	SMB	2	1000	50	1.15	5	2	1000	-
S3GBHE3	SMB	3	400	100	1.15	10	3	400	-
S3JBHE3	SMB	3	600	100	1.15	10	3	600	-
S3MBHE3	SMB	3	1000	100	1.15	10	3	1000	-
S3BHE3	SMC	3	100	100	1.20	10	3	100	-
S3GHE3	SMC	3	400	100	1.20	10	3	400	-
S3JHE3	SMC	3	600	100	1.20	10	3	600	-
S3MHE3	SMC	3	1000	100	1.20	10	3	1000	-
S5GLHE3	SMC	5	400	100	1.15	5	5	400	-
S5JLHE3	SMC	5	600	100	1.15	5	5	600	-
S5MLHE3	SMC	5	1000	100	1.15	5	5	1000	-
S8GLHE3	SMC	8	400	200	1.05	5	8	400	-
S8JLHE3	SMC	8	600	200	1.05	5	8	600	-
S8MLHE3	SMC	8	1000	200	1.05	5	8	1000	-
S10DLHE3	SMC	10	200	200	1.00	5	10	200	-

Automotive Products

Super Fast Recovery Rectifiers

Part Number	Package	Average Forward Current	Working Peak Reverse Voltage	Peak Forward Surge Current	Maximum Forward Voltage	Reverse Voltage Leakage Current	At Rated Forward Current	Maximum DC Blocking Voltage	Reverse Recovery Time
		I _{F(AV)} (A)	V _{RWM} (V)	I _{FSM} (A)	V _F (V)	I _R (uA)	I _{FM} (A)	V _R (V)	T _{RR} (μs)
ES1DHE3-L	SMA	1	200	30	0.950	5	1	200	0.035
ES1GHE3-L	SMA	1	400	30	1.300	5	1	400	0.035
ES1JHE3-L	SMA	1	600	30	1.700	5	1	600	0.035
SFM14PLHE3	SOD-123FL	1	200	30	1.000	5	1	200	0.035
SFM16PLHE3	SOD-123FL	1	400	30	1.300	5	1	400	0.035
SFM18PLHE3	SOD-123FL	1	600	30	1.700	5	1	600	0.035
UG1DHE3	SMA	1	200	30	0.920	2	1	200	0.025
UG1DPLHE3	SOD-123FL	1	200	30	0.920	2	1	200	0.025
US1MHE3	SMA	1	1000	30	1.700	5	1	1000	0.075
ER2DHE3-L	SMB	2	200	50	0.950	5	2	200	0.035
ER2GHE3-L	SMB	2	400	50	1.300	5	2	400	0.035
ER2JHE3-L	SMB	2	600	50	1.700	5	2	600	0.035
ES2DHE3-L	SMA	2	200	50	0.950	5	2	200	0.035
ES2GHE3-L	SMA	2	400	50	1.300	5	2	400	0.035
ES2JHE3-L	SMA	2	600	50	1.700	5	2	600	0.035
MURS2DHE3	SMB	2	200	50	0.920	2	2	200	0.025
UG2DAHE3	SMA	2	200	50	0.920	2	2	200	0.025
US2MAHE3	SMA	2	1000	50	1.700	5	2	1000	0.075
ER3DBHE3	SMB	3	200	100	0.950	5	3	200	0.035
ER3GBHE3	SMB	3	400	100	1.300	5	3	400	0.035
ER3JBHE3	SMB	3	600	100	1.700	5	3	600	0.035
ER3DHE3	SMC	3	200	100	0.950	5	3	200	0.035
ER3GHE3	SMC	3	400	100	1.300	5	3	400	0.035
ER3JHE3	SMC	3	600	100	1.700	5	3	600	0.035

Automotive Products

Schottky Barrier Rectifiers

Part Number	Package	Average Forward Current	Working Peak Reverse Voltage	Peak Forward Surge Current	Maximum Forward Voltage	Reverse Voltage Leakage Current	At Rated Forward Current	Maximum DC Blocking Voltage	Low VF
		I _F (A)	V _{RWM} (V)	I _{FSM} (A)	V _F (V)	I _R (uA)	I _{FM} (A)	V _R (V)	
SM5817PLHE3	SOD-123FL	1	20	30	0.45	50	1	20	No
SM5818PLHE3	SOD-123FL	1	30	30	0.53	50	1	30	No
SM5819PLHE3	SOD-123FL	1	40	30	0.53	50	1	40	No
SMD110PLHE3	SOD-123FL	1	100	30	0.85	5	1	100	No
SMD110PLQ	SOD-123FL	1	100	40	0.77	1	1	100	No
SMD120PLQ	SOD-123FL	1	200	40	0.9	1	1	200	No
SMD1150PLHE3	SOD-123FL	1	150	30	0.85	10	1	150	No
SMD1200PLHE3	SOD-123FL	1	200	30	0.95	10	1	200	No
SMD14PLQ	SOD-123FL	1	40	40	0.5	100	1	40	No
SMD16PLQ	SOD-123FL	1	60	40	0.7	50	1	60	No
SMD16PLHE3	SOD-123FL	1	60	30	0.7	100	1	60	No
SMD18PLHE3	SOD-123FL	1	80	30	0.85	100	1	80	No
SS110Q-L	SMA	1	100	40	0.77	1	1	100	No
SS120Q-L	SMA	1	200	40	0.9	1	1	200	No
SS1150HE3-L	SMA	1	150	30	0.9	10	1	150	No
SS1200HE3-L	SMA	1	200	30	0.92	10	1	200	No
SS12HE3-L	SMA	1	20	50	0.5	100	1	20	No
SS13HE3-L	SMA	1	30	50	0.5	100	1	30	No
SS14HE3-L	SMA	1	40	50	0.5	100	1	40	No
SS16HE3-L	SMA	1	60	50	0.7	100	1	60	No
SS110HE3-L	SMA	1	100	50	0.85	50	1	100	No
SS14Q-L	SMA	1	40	40	0.5	100	1	40	No
SS16Q-L	SMA	1	60	40	0.7	50	1	60	No
SK210Q-L	SMB	2	100	75	0.8	5	2	100	No
SK220Q-L	SMB	2	200	75	0.9	5	2	200	No
SK220HE3-L	SMB	2	200	75	0.9	5	2	200	No
SK23HE3-L	SMB	2	30	50	0.5	100	2	30	No
SK24HE3-L	SMB	2	40	50	0.5	100	2	40	No
SK26HE3-L	SMB	2	60	50	0.7	100	2	60	No
SK210HE3-L	SMB	2	100	50	0.85	50	2	100	No
SK24Q-L	SMB	2	40	75	0.55	100	2	40	No
SK26Q-L	SMB	2	60	75	0.7	100	2	60	No
SMD210PLQ	SOD-123FL	2	100	50	0.8	5	2	100	No
SMD220PLQ	SOD-123FL	2	200	50	0.9	5	2	200	No
SMD220PLHE3	SOD-123FL	2	200	50	0.9	5	2	200	No
SMD22PLHE3	SOD-123FL	2	20	50	0.55	100	2	20	No
SMD24PLHE3	SOD-123FL	2	40	50	0.55	100	2	40	No
SMD26PLHE3	SOD-123FL	2	60	50	0.7	100	2	60	No
SMD28PLHE3	SOD-123FL	2	80	50	0.85	100	2	80	No
SMD210PLHE3	SOD-123FL	2	100	50	0.85	100	2	100	No
SMD24PLQ	SOD-123FL	2	40	50	0.55	100	2	40	No
SMD26PLQ	SOD-123FL	2	60	50	0.7	100	2	60	No
SS210Q-L	SMA	2	100	75	0.8	5	2	100	No
SS220Q-L	SMA	2	200	75	0.9	5	2	200	No

Automotive Products

Schottky Barrier Rectifiers

Part Number	Package	Average Forward Current	Working Peak Reverse Voltage	Peak Forward Surge Current	Maximum Forward Voltage	Reverse Voltage Leakage Current	At Rated Forward Current	Maximum DC Blocking Voltage	Low VF
		I _F (A)	V _{RWM} (V)	I _{FSM} (A)	V _F (V)	I _R (uA)	I _{FM} (A)	V _R (V)	
SS220HE3-L	SMA	2	200	75	0.9	5	2	200	No
SS24HE3-L	SMA	2	40	50	0.55	100	2	40	No
SS26HE3-L	SMA	2	60	50	0.7	100	2	60	No
SS210HE3-L	SMA	2	100	50	0.85	100	2	100	No
SS24Q-L	SMA	2	40	75	0.55	100	2	40	No
SS26Q-L	SMA	2	60	75	0.7	100	2	60	No
SK310AQ-L	SMA	3	100	80	0.8	5	3	100	No
SK320AQ-L	SMA	3	200	80	0.9	5	3	100	No
SK310BQ-L	SMB	3	100	80	0.8	5	3	100	No
SK320BQ-L	SMB	3	200	80	0.9	5	3	200	No
SK310Q	SMC	3	100	80	0.8	5	3	100	No
SK320Q	SMC	3	200	80	0.9	5	3	200	No
SK3150BHE3-L	SMB	3	150	80	0.86	10	3	150	No
SK3200BHE3-L	SMB	3	200	100	0.86	2	3	200	No
SK3200HE3	SMC	3	200	80	0.9	1	3	200	No
SK34BHE3-L	SMB	3	40	100	0.5	100	3	40	No
SK36BHE3-L	SMB	3	60	100	0.75	100	3	60	No
SK310BHE3-L	SMB	3	100	100	0.85	100	3	100	No
SK34HE3	SMC	3	40	100	0.5	100	3	40	No
SK36HE3	SMC	3	60	100	0.75	100	3	60	No
SK310HE3	SMC	3	100	100	0.85	100	3	100	No
SK34AHE3-L	SMA	3	40	80	0.5	100	3	40	No
SK36AHE3-L	SMA	3	60	80	0.7	100	3	60	No
SK310AHE3-L	SMA	3	100	80	0.8	1	3	100	No
SK3150AHE3-L	SMA	3	150	70	0.9	10	3	150	No
SK3200AHE3-L	SMA	3	200	70	0.9	10	3	200	No
SK34AQ-L	SMA	3	40	80	0.5	100	3	40	No
SK36AQ-L	SMA	3	60	80	0.7	100	3	60	No
SK34BQ-L	SMB	3	40	80	0.5	100	3	40	No
SK36BQ-L	SMB	3	60	80	0.7	100	3	40	No
SK34Q	SMC	3	40	80	0.5	100	3	40	No
SK36Q	SMC	3	60	80	0.7	100	3	60	No
SMD310HE1Q	SOD-123HE1	3	100	80	0.8	5	3	100	No
SMD310PLQ	SOD-123FL	3	100	80	0.8	5	3	100	No
SMD320PLQ	SOD-123FL	3	200	80	0.9	5	3	200	No
SMD34PLQ	SOD-123FL	3	40	80	0.5	100	3	40	No
SMD36PLQ	SOD-123FL	3	60	80	0.7	100	3	60	No
SMD36HE1Q	SOD-123HE1	3	60	80	0.7	100	3	60	No
MBR5U100HHE3	TO-277	5	100	240	0.8	10	5	100	No
MBR5U100HQ	TO-277	5	100	200	0.8	10	5	100	No
MBR5U60SHE3	TO-277	5	60	200	0.65	100	5	60	No
MBR5U60SQ	TO-277	5	60	200	0.64	100	5	60	No
SK510AQ-L	SMA	5	100	120	0.8	5	5	100	No
SK520AQ-L	SMA	5	200	120	0.9	5	5	200	No

Automotive Products

Schottky Barrier Rectifiers

Part Number	Package	Average Forward Current	Working Peak Reverse Voltage	Peak Forward Surge Current	Maximum Forward Voltage	Reverse Voltage Leakage Current	At Rated Forward Current	Maximum DC Blocking Voltage	Low VF
		I _F (A)	V _{RWM} (V)	I _{FSM} (A)	V _F (V)	I _R (uA)	I _{FM} (A)	V _R (V)	
SK510BQ-L	SMB	5	100	120	0.8	5	5	100	No
SK520BQ-L	SMB	5	200	120	0.9	5	5	200	No
SK510LQ	SMC	5	100	120	0.8	5	5	100	No
SK520LQ	SMC	5	200	120	0.9	5	5	200	No
SK5150LHE3	SMC	5	150	150	0.87	10	5	150	No
SK5200LHE3	SMC	5	200	150	0.9	10	5	200	No
SK5200AHE3-L	SMA	5	200	120	0.9	1	5	200	No
SK520BHE3-L	SMB	5	200	120	0.9	10	5	200	No
SK54AHE3-L	SMA	5	40	100	0.55	100	5	40	No
SK56AHE3-L	SMA	5	60	100	0.75	100	5	60	No
SK510AHE3-L	SMA	5	100	100	0.85	100	5	100	No
SK54BHE3-L	SMB	5	40	100	0.55	100	5	40	No
SK56BHE3-L	SMB	5	60	100	0.75	100	5	60	No
SK510BHE3-L	SMB	5	100	100	0.85	50	5	100	No
SK53LHE3	SMC	5	30	100	0.55	100	5	30	No
SK54LHE3	SMC	5	40	100	0.55	100	5	40	No
SK56LHE3	SMC	5	60	100	0.75	100	5	60	No
SK510LHE3	SMC	5	100	100	0.85	100	5	100	No
SK54AQ-L	SMA	5	40	120	0.6	100	5	40	No
SK56AQ-L	SMA	5	60	120	0.7	100	5	60	No
SK54BQ-L	SMB	5	40	120	0.6	100	5	40	No
SK56BQ-L	SMB	5	60	120	0.7	100	5	60	No
SK54LQ	SMC	5	40	120	0.6	100	5	40	No
SK56LQ	SMC	5	60	120	0.7	100	5	60	No
SK810LQ	SMC	8	100	150	0.85	5	8	100	No
SK820LQ	SMC	8	200	150	0.9	5	8	200	No
SK820LHE3	SMC	8	200	150	0.9	10	8	200	No
SK84LHE3	SMC	8	40	200	0.65	100	8	40	No
SK86LHE3	SMC	8	60	200	0.65	100	8	60	No
SK810LHE3	SMC	8	100	200	0.8	100	8	100	No
SK84LQ	SMC	8	40	150	0.55	100	8	40	No
SK86LQ	SMC	8	60	150	0.7	100	8	60	No
MBR10U100HHE3	TO-277	10	100	240	0.85	10	10	100	No
MBR10U100HQ	TO-277	10	100	200	0.85	10	10	100	No
MBR10U200HE3	TO-277	10	200	200	0.95	100	10	200	No
MBR10U200Q	TO-277	10	200	200	0.9	1	10	200	No
MBRB10100CTQ	D2-PAK	10	100	150	0.8	10	5	100	No
MBRB10200CTQ	D2-PAK	10	200	150	0.9	10	5	200	No
MBRB1060CTQ	D2-PAK	10	60	150	0.72	100	5	60	No
MBRD10100CTQ	DPAK	10	100	120	0.8	10	5	100	No
MBRD10200CTQ	DPAK	10	200	120	0.9	10	5	200	No
MBRD1045CTQ	DPAK	10	45	120	0.58	100	5	45	No
MBRD1060CTQ	DPAK	10	60	120	0.72	100	5	60	No
MBR15U100Q	TO-277	15	100	300	0.88	10	15	100	No

Automotive Products

Schottky Barrier Rectifiers

Part Number	Package	Average Forward Current	Working Peak Reverse Voltage	Peak Forward Surge Current	Maximum Forward Voltage	Reverse Voltage Leakage Current	At Rated Forward Current	Maximum DC Blocking Voltage	Low VF
		I _F (A)	V _{RWM} (V)	I _{FSM} (A)	V _F (V)	I _R (uA)	I _{FM} (A)	V _R (V)	
MBR15U45HE3	TO-277	15	45	300	0.54	100	15	45	No
MBR15U45Q	TO-277	15	45	300	0.6	100	15	45	No
MBR15U60HE3	TO-277	15	60	300	0.68	100	15	60	No
MBR15U60Q	TO-277	15	60	300	0.72	100	15	60	No
MBRB20100CTQ	D2-PAK	20	100	200	0.82	10	10	100	No
MBRB20200CTQ	D2-PAK	20	200	200	0.9	10	10	200	No
MBRB2060CTQ	D2-PAK	20	60	200	0.72	100	10	60	No
MBRB30100CTQ	D2-PAK	30	100	250	0.82	10	15	100	No
MBRB30200CTQ	D2-PAK	30	200	250	0.9	10	15	200	No
MBRB3045CTQ	D2-PAK	30	45	200	0.65	100	15	45	No
MBRB3060CTQ	D2-PAK	30	60	250	0.72	100	15	60	No

Automotive Products

Small Signal Bipolar Transistors

Part Number	Package	Polarity	Power Dissipation	Collector-Emitter Breakdown Voltage	Collector Current	DC Current Gain			Base-Emitter Saturation Voltage			Transition Frequency
			P _C (W)	V _{CE0} (V)	I _C (A)	H _{FE}	V _{CE} (V)	I _C (mA)	V _{CE(sat)} (V)	I _C (mA)	I _B (mA)	f _T (MHz)
MMSTA06HE3	SOT-323	NPN	0.200	80	0.50	100~400	1	10	0.25	100	10	100
MMBT5551HE3	SOT-23	NPN	0.300	160	0.60	100-300	5	10	0.20	50	5	100
MMDT5551HE3	SOT-363	NPN*2	0.200	160	0.60	100-300	5	10	0.15	10	1	250
MMST5551HE3	SOT-323	NPN	0.200	160	0.60	30	5	50	0.20	50	5	100
MMBTA42HE3	SOT-23	NPN	0.350	300	0.50	40	10	10	0.50	20	2	50
MMSTA42HE3	SOT-323	NPN	0.200	300	0.20	40	10	10	0.50	20	2	50
MMS8550HE3-H	SOT-23	PNP	0.300	-25	-0.50	200-350	-1	-50	-0.60	-500	-50	150
MMS8550HE3-L	SOT-23	PNP	0.300	-25	-0.50	120-200	-1	-50	-0.60	-500	-50	150
MMS9012HE3-H	SOT-23	PNP	0.300	-25	-0.50	200-350	-1	-50	-0.60	-500	-50	150
MMS9012HE3-L	SOT-23	PNP	0.300	-25	-0.50	120-200	-1	-50	-0.60	-500	-50	150
MMSS8550HE3-H	SOT-23	PNP	0.625	-25	-1.50	200-350	-1	-100	-0.50	-800	-80	100
MMSS8550HE3-L	SOT-23	PNP	0.625	-25	-1.50	120-200	-1	-100	-0.50	-800	-80	100
BC858AWHE3	SOT-323	PNP	0.150	-30	-0.10	125-250	-5	-2	-0.65	-100	-5	100
BC858BWHE3	SOT-323	PNP	0.150	-30	-0.10	220-475	-5	-2	-0.65	-100	-5	100
BC858AHE3	SOT-23	PNP	0.300	-30	-0.10	125-250	-5	-2	-0.65	-100	-5	100
BC858BHE3	SOT-23	PNP	0.300	-30	-0.10	220-475	-5	-2	-0.65	-100	-5	100
BC858CHE3	SOT-23	PNP	0.300	-30	-0.10	420-800	-5	-2	-0.65	-100	-1	100
FMMT591BHE3	SOT-23	PNP	0.300	-40	-1.00	300	-5	-1	-0.20	-100	-1	150
MMBT3906HE3	SOT-23	PNP	0.300	-40	-0.20	100-300	-1	-10	-0.25	-10	-1	250
MMBT4403HE3	SOT-23	PNP	0.350	-40	-0.60	100	-1	-10	-0.40	-150	-15	200
MMDT3906HE3	SOT-363	PNP*2	0.200	-40	-0.20	100-300	-1	-10	-0.25	-10	-1	250
MMST3906HE3	SOT-323	PNP	0.200	-40	-0.20	100-300	-10	-1	-0.30	-50	-5	300
MMST4403HE3	SOT-323	PNP	0.200	-40	-0.60	100-300	-2	-150	-0.40	-150	-15	200
BC807-16HE3	SOT-23	PNP	0.300	-45	-0.50	100-250	-1	-100	-0.70	500	50	100
BC807-25HE3	SOT-23	PNP	0.300	-45	-0.50	160-400	-1	-100	-0.70	500	50	100
BC807-40HE3	SOT-23	PNP	0.300	-45	-0.50	250-600	-1	-100	-0.70	500	50	100
BC807-16WHE3	SOT-323	PNP	0.200	-45	-0.50	100-250	-1	-100	-0.70	-500	-50	100
BC807-25WHE3	SOT-323	PNP	0.200	-45	-0.50	160-400	-1	-100	-0.70	-500	-50	100
BC807-40WHE3	SOT-323	PNP	0.200	-45	-0.50	250-600	-1	-100	-0.70	-500	-50	100
BC857AWHE3	SOT-323	PNP	0.150	-45	-0.10	125-250	-5	-2	-0.65	-100	-5	100
BC857BWHE3	SOT-323	PNP	0.150	-45	-0.10	220-475	-5	-2	-0.65	-100	-5	100
BC857BSHE3	SOT-363	PNP*2	0.200	-45	-0.20	200-475	-5	-2	-0.65	-100	-5	100
BC857AHE3	SOT-23	PNP	0.310	-45	-0.10	125-250	-5	-2	-0.30	-10	-0.5	200
BC857BHE3	SOT-23	PNP	0.310	-45	-0.10	220-475	-5	-2	-0.30	-10	-0.5	200
MMS9015HE3-H	SOT-23	PNP	0.200	-45	-0.10	450-1000	-5	-1	-0.30	-100	-10	150
MMS9015HE3-L	SOT-23	PNP	0.200	-45	-0.10	200-450	-5	-1	-0.30	-100	-10	150
FMMT591HE3	SOT-23	PNP	0.300	-60	-1.00	100-300	-5	-500	-0.60	-1	-100	150
MMBT2907AHE3	SOT-23	PNP	0.350	-60	-0.60	100	-10	-10	-0.40	-150	-15	200
MMDT2907AHE3	SOT-363	PNP*2	0.200	-60	-0.60	100	-10	-10	-0.40	-150	-15	200
MMST2907AHE3	SOT-323	PNP	0.200	-60	-0.60	100	-10	-1	-1.60	-500	-50	200
BC856AWHE3	SOT-323	PNP	0.150	-65	-0.10	125-250	-5	-2	-0.65	-100	-5	100
BC856BWHE3	SOT-323	PNP	0.150	-65	-0.10	220-475	-5	-2	-0.65	-100	-5	100
BC856AHE3	SOT-23	PNP	0.310	-65	-0.10	125-250	-5	-2	-0.30	-10	-0.5	200
BC856BHE3	SOT-23	PNP	0.310	-65	-0.10	220-475	-5	-2	-0.30	-10	-0.5	200

Small Signal Bipolar Transistors

Part Number	Package	Polarity	Power Dissipation	Collector-Emitter Breakdown Voltage	Collector Current	DC Current Gain			Base-Emitter Saturation Voltage			Transition Frequency
			P _C (W)	V _{CEO} (V)	I _C (A)	H _{FE}	V _{CE} (V)	I _C (mA)	V _{CE(sat)} (V)	I _C (mA)	I _B (mA)	f _T (MHz)
MMBTA56HE3	SOT-23	PNP	0.300	-80	-0.50	100	-1	-10	-0.25	-100	-10	100
MMSTA56HE3	SOT-323	PNP	0.200	-80	-0.50	100	-1	-10	-0.25	-100	-10	100
MMBT5401HE3	SOT-23	PNP	0.300	-150	-0.60	100-300	-5	-10	-0.50	-50	-5	100
MMDT5401HE3	SOT-363	PNP*2	0.200	-150	-0.60	100-300	-5	-10	-0.50	-50	-5	250
MMST5401HE3	SOT-323	PNP	0.200	-150	-0.60	60-300	-5	-10	-0.50	-50	-5	100
MMBTA92HE3	SOT-23	PNP	0.300	-300	-0.30	100-200	-10	-10	-0.50	-20	-2	50
MMSTA92HE3	SOT-323	PNP	0.200	-300	-0.10	40	-10	-10	-0.40	-20	-2	50
MMDT2227HE3	SOT-363	NPN+PNP	0.200	40/-60	0.6/-0.6	35/75	10/-10	0.1/-0.1	0.3/-0.4	150/-150	15/-15	250
MMDT3946HE3	SOT-363	NPN+PNP	0.200	40/-40	0.2/-0.2	100-300	1/-1	10/-10	0.3/-0.4	50/-50	5/-5	300/250
BC847PNHE3	SOT-363	NPN+PNP	0.200	45/-45	0.1/-0.1	200-450/220-475	5/-5	2/-2	0.25/-0.30	10/-10	0.5/-0.5	100
BC846BPNHE3	SOT-363	NPN+PNP	0.200	65/-65	0.1/-0.1	200-450	5/-5	2/-2	0.25/-0.30	10/-10	0.5/-0.5	100
MMDT5451HE3	SOT-363	NPN+PNP	0.200	160/-150	0.2/-0.2	100-300	5/-5	10/-10	0.2/-0.5	50/-50	5/-5	100-300

Medium Power Bipolar Transistors

Part Number	Package	Polarity	Power Dissipation	Collector-Emitter Breakdown Voltage	Collector Current	DC Current Gain			Base-Emitter Saturation Voltage			Transition Frequency
			P _C (W)	V _{CEO} (V)	I _C (A)	H _{FE}	V _{CE} (V)	I _C (mA)	V _{CE(sat)} (V)	I _C (mA)	I _B (mA)	f _T (MHz)
BCP56-16HE3	SOT-223	NPN	1.5	80	1	100-250	2	150	0.5	500	50	100
BCX56-16HE3	SOT-89	NPN	0.5	80	1	100-250	2	150	0.5	500	50	130
MJD31CHE3	DPAK	NPN	1.25	100	3	10-75	4	3000	1.2	3000	375	3
MJD41CHE3	DPAK	NPN	1.25	100	6	15-155	4	3	1.5	6	0.6	3
PZT5551HE3	SOT-223	NPN	1	160	0.6	80	5	1	0.15	10	1	100
PZT2907AHE3	SOT-223	PNP	1	-60	-0.6	100-300	-10	-150	-0.4	-150	-15	200
BCP53-16HE3	SOT-223	PNP	1.5	-80	-1	100-250	-2	-150	-0.5	-500	-50	100
BCX53-16HE3	SOT-89	PNP	0.5	-80	-1	100-250	-2	-150	-0.5	-500	-50	50
MJD32CHE3	DPAK	PNP	1.25	-100	-3	10-75	-0.375	-3000	-1.2	-3000	-375	3
MJD42CHE3	DPAK	PNP	1.5	-100	-6	15-75	-4	-3000	-1.5	-6000	-600	3

Automotive Products

Pre-biased Transistors

Part Number	Package	Polarity	Power Dissipation	Output Current	Supply Voltage	DC Current Gain	Output Voltage	Input Resistance		Transition frequency
			P _o (mW)	I _o (mA)	V _{cc} (V)	G _i	V _o (V)	R _i (KΩ)	R _e (KΩ)	f _t (MHZ)
UMH10NHE3	SOT-363	NPN*2	150	100	50	80	0.3	2.2	47	250
UMH11NHE3	SOT-363	NPN*2	150	100	50	30	0.3	10	10	250
UMH13NHE3	SOT-363	NPN*2	150	100	50	80	0.3	4.7	47	250
UMH1NHE3	SOT-363	NPN*2	150	100	50	56	0.3	22	22	250
UMH2NHE3	SOT-363	NPN*2	150	100	50	68	0.3	47	47	200
UMH9NHE3	SOT-363	NPN*2	150	100	50	68	0.3	10	47	250
DTC114ECAHE3	SOT-23	NPN	200	100	50	30	0.3	10	10	250
DTC114EUAHE3	SOT-323	NPN	200	100	50	33	0.3	10	10	250
DTC114YCAHE3	SOT-23	NPN	200	100	50	68	0.3	10	47	250
DTC114YUAHE3	SOT-323	NPN	200	100	50	68	0.3	10	47	250
DTC123JCAHE3	SOT-23	NPN	200	100	50	80	0.3	2.2	47	200
DTC123JUAHE3	SOT-323	NPN	200	100	50	80	0.3	2.2	47	200
DTC124ECAHE3	SOT-23	NPN	200	100	50	56	0.3	22	22	250
DTC124EUAHE3	SOT-323	NPN	200	100	50	56	0.3	22	22	250
DTC143ECAHE3	SOT-23	NPN	200	100	50	20	0.3	4.7	4.7	250
DTC143EUAHE3	SOT-323	NPN	200	100	50	20	0.3	4.7	4.7	250
DTC143ZCAHE3	SOT-23	NPN	200	100	50	80	0.3	4.7	47	250
DTC143ZUAHE3	SOT-323	NPN	200	100	50	80	0.3	4.7	47	250
DTC144ECAHE3	SOT-23	NPN	200	100	50	68	0.3	47	47	250
DTC144EUAHE3	SOT-323	NPN	200	100	50	68	0.3	47	47	250
DTA114ECAHE3	SOT-23	PNP	200	-100	-50	30	-0.3	10	10	250
DTA114EUAHE3	SOT-323	PNP	200	-100	-50	30	-0.3	10	10	250
DTA114YCAHE3	SOT-23	PNP	200	-100	-50	68	-0.3	10	47	250
DTA114YUAHE3	SOT-323	PNP	200	-100	-50	68	-0.3	10	47	250
DTA123JCAHE3	SOT-23	PNP	200	-100	-50	80	-0.3	2.2	47	200
DTA123JUAHE3	SOT-323	PNP	200	-100	-50	80	-0.3	2.2	47	200
DTA124ECAHE3	SOT-23	PNP	200	-100	-50	56	-0.3	22	22	200
DTA124EUAHE3	SOT-323	PNP	200	-100	-50	56	-0.3	22	22	200
DTA143ECAHE3	SOT-23	PNP	200	-100	-50	30	-0.3	4.7	4.7	250
DTA143EUAHE3	SOT-323	PNP	200	-100	-50	30	-0.3	4.7	4.7	250
DTA143ZCAHE3	SOT-23	PNP	200	-100	-50	80	-0.3	4.7	47	250
DTA143ZUAHE3	SOT-323	PNP	200	-100	-50	80	-0.3	4.7	47	250
DTA144ECAHE3	SOT-23	PNP	200	-100	-50	68	-0.3	47	47	250
DTA144EUAHE3	SOT-323	PNP	200	-100	-50	68	-0.3	47	47	250
UMB9NHE3	SOT-363	PNP*2	150	-100	-50	68	-0.3	10	47	200
UMD10NHE3	SOT-363	NPN+PNP	150	100/-100	50/-50	80	0.3/-0.3	2.2	47	200
UMD12NHE3	SOT-363	NPN+PNP	150	100/-100	50/-50	68	0.3/-0.3	47	47	250
UMD15NHE3	SOT-363	NPN+PNP	150	100/-100	50/-50	20/30	0.3/-0.3	4.7	4.7	250
UMD2NHE3	SOT-363	NPN+PNP	150	100/-100	50/-50	56	0.3/-0.3	22	22	250
UMD2NHE3-TPQ2	SOT-363	NPN+PNP	150	100/-100	50/-50	56	0.3/-0.3	22	22	250
UMD22NHE3	SOT-363	NPN+PNP	200	100/-100	50/-50	30	0.3/-0.3	4.7	47	250
UMD3NHE3	SOT-363	NPN+PNP	200	100/-100	50/-50	30	0.3/-0.3	10	10	250
UMD9NHE3	SOT-363	NPN+PNP	200	100/-100	50/-50	68	0.3/-0.3	10	47	250

Automotive Application

Automotive Application

MCC offers a broad range of solutions with ready to go design solutions in Automotive segment. There are various parts and packages are qualified under AEC-Q101 standard. Feel free to contact Sales team or distributors for more information and support.

Front & Rear LED Lights

Automotive Interior LED Lighting

LED backlights (touch screen, cameras)

Infotainment in Cabin

Electric Power Steering (EPS)

Battery Management System (BMS) for Evs

Auto Seat Controls

Instrument Cluster

Body Control Module (BCM)

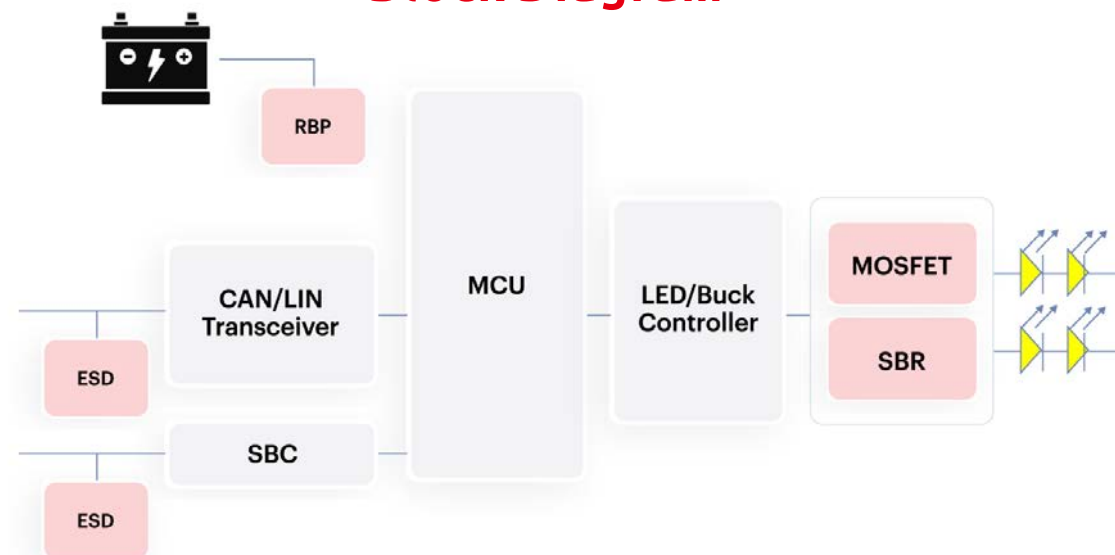
Advanced Driver Assistance System (ADAS) Sensor Module

Fast EV Charger

Front & Rear LED Lights

Exterior auto lights must provide safe and long-lasting performance in a variety of conditions while enhancing a vehicle's aesthetics. LEDs are a popular headlamp lighting technology due to their energy-efficient operation and life span of 50,000 to 100,000 hours. Several factors must be considered in exterior Automotive lighting design to maximize safety and reliability.

Block Diagram

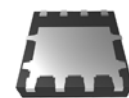


Recommended Products



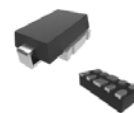
Schottky Barrier Rectifiers

- SS110Q-L
- SK210Q-L
- SK310Q



Power MOSFETS

- MCACL320N04YQ
- MCG53N06AHE3
- MCACL320N04YQ
- MCU75N06YHE3



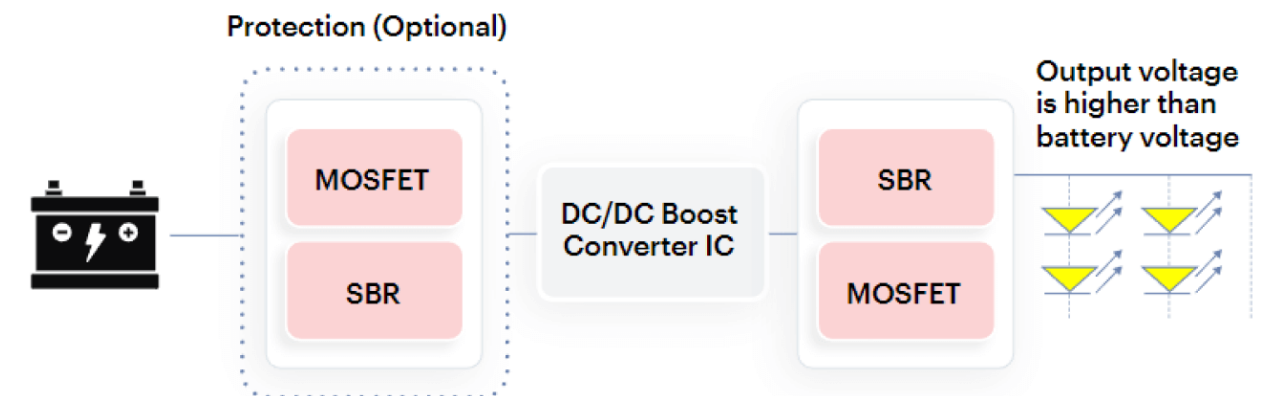
ESD Protection Devices

- ESD1524D3BHE3A
- ESD24VD3BHE3
- ESDSB5V0D3BHE3

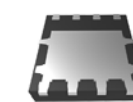
LED backlights (touch screen, cameras)

Most new cars today are equipped with LCDs, cameras, and touchscreens, making LED backlights a must for the Automotive market. LEDs and the drivers that empower them deliver effective power management and protect against EMI.

Block Diagram

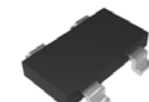


Recommended Products



Power MOSFETS

- MOSFET, 40-60V, DFN5060, <40mohm
- MCAC53N06YHE3
- 40V~80V, <20mohm



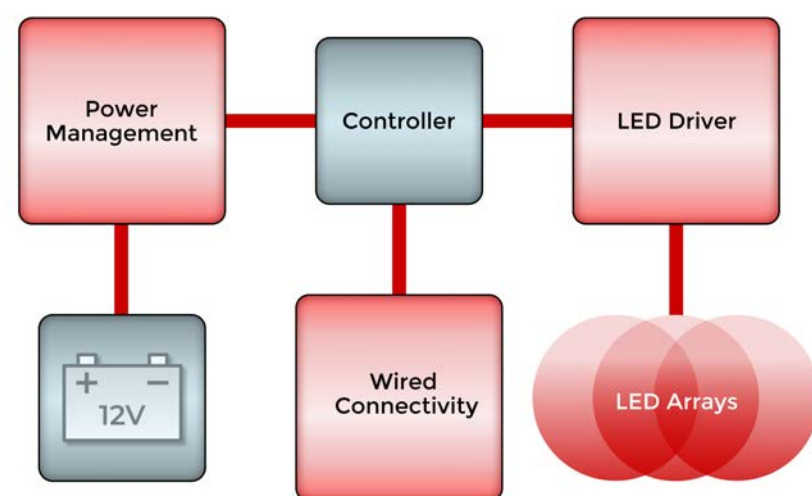
Schottky Barrier Rectifiers

- SM5819PLHE3
- SMD110PLHE3

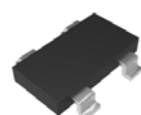
Automotive Interior LED Lighting

Interior lighting serves many functions inside the vehicle, providing a new level of comfort and safety. From indicators to accent lighting, nighttime visibility, and ambiance, LEDs are the go-to technology for enhancing due to their efficiency, size, and design flexibility.

Block Diagram



Recommended Products



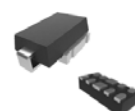
Schottky Barrier Rectifiers

- ➔ SS110Q-L
- ➔ SK210Q-L
- ➔ SK310Q



Power MOSFETS

- ➔ MCACL320N04YQ
- ➔ MCG53N06AHE3
- ➔ MCU80N06AHE3
- ➔ MCAC60N10YAHE3



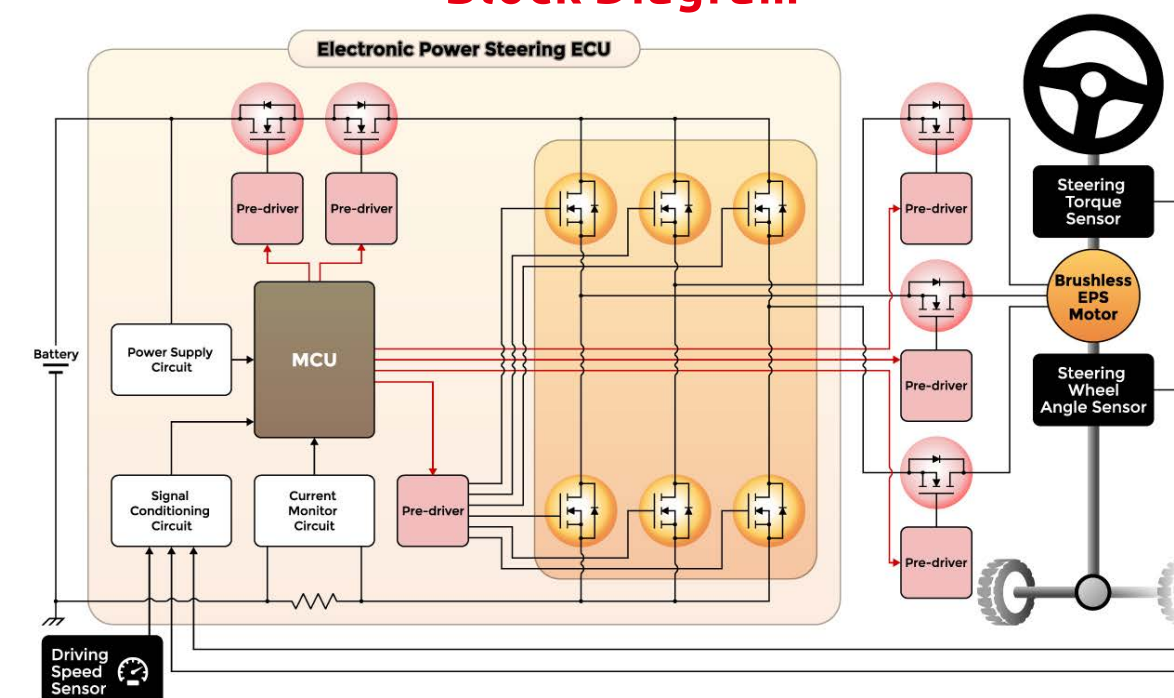
ESD Protection Devices

- ➔ ESD1524D3BHE3A
- ➔ ESD24VD3BHE3
- ➔ ESDSB5V0D3BHE3

Electric Power Steering (EPS)

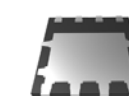
For convenience and safety, electric power steering systems must maintain constant communication with the road and the driver. The EPS system also enables many of the features found in modern vehicles — from lane assist to parking. As vehicles and EVs become more advanced, EPS systems will remain mission-critical.

Block Diagram



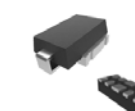
Schottky Barrier Rectifiers

- ➔ SS110Q-L
- ➔ SK210Q-L
- ➔ SK310Q



Power MOSFETS

- ➔ MCACL320N04YQ
- ➔ MCG53N06AHE3
- ➔ MCACL320N04YQ
- ➔ MCU75N06YHE3

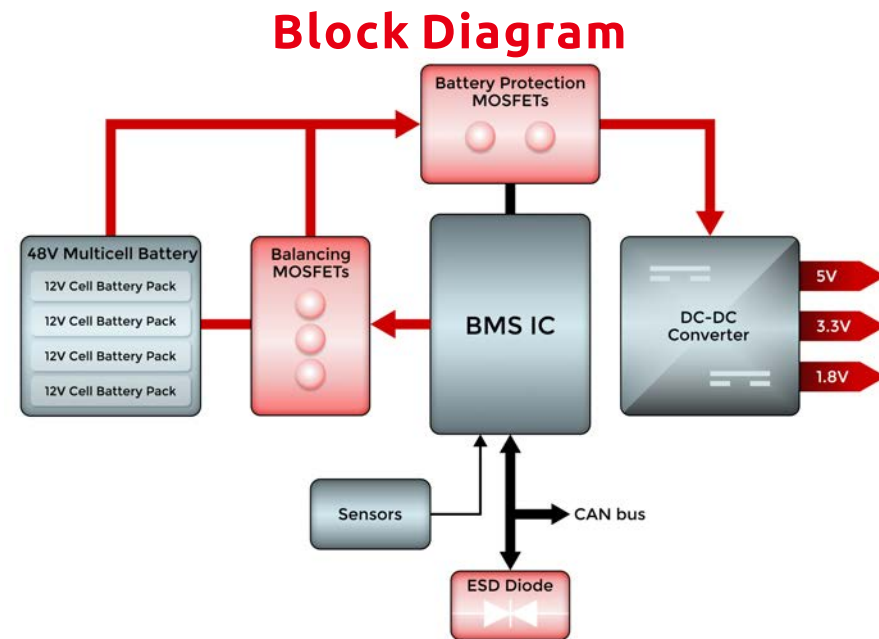


ESD Protection Devices

- ➔ ESD1524D3BHE3A
- ➔ ESD24VD3BHE3
- ➔ ESDSB5V0D3BHE3
- ➔ ESD1524D3BHE3A
- ➔ ESD24VD3BHE3
- ➔ ESDSB5V0D3BHE3

Battery Management System (BMS) for Evs

The battery management system monitors the battery in real-time for electric vehicles, then optimizes performance to prolong its life and communicate with the driver to enhance safety.

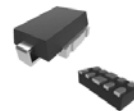


Recommended Products



Power MOSFETS

- ➔ MCACL320N04YQ
- ➔ MCG53N06AHE3

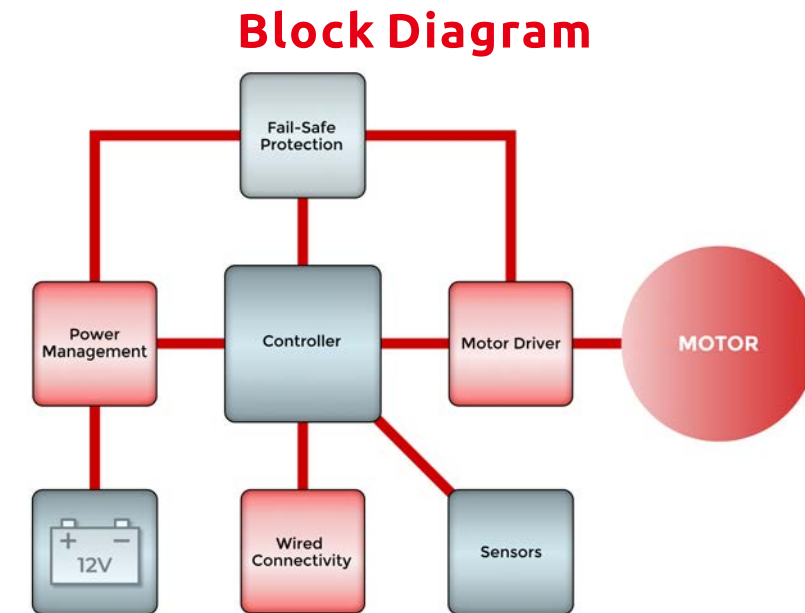


Schottky Barrier Rectifiers

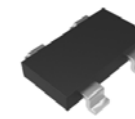
- ➔ ESD1524D3BHE3A
- ➔ ESD24VD3BHE3
- ➔ ESDSB5V0D3BHE3

Auto Seat Controls

Today's cars, trucks, and EVs are designed to provide maximum comfort and safety for drivers and passengers. Seat controls perform many functions beyond moving closer to the steering wheel, each designed to enhance the driving experience.

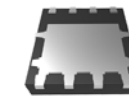


Recommended Products



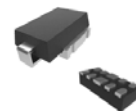
Schottky Barrier Rectifiers

- ➔ SS110Q-L
- ➔ SK210Q-L
- ➔ SK310Q



Power MOSFETS

- ➔ MCACL320N04YQ
- ➔ MCG53N06AHE3
- ➔ MCACL320N04YQ
- ➔ MCU75N06YHE3



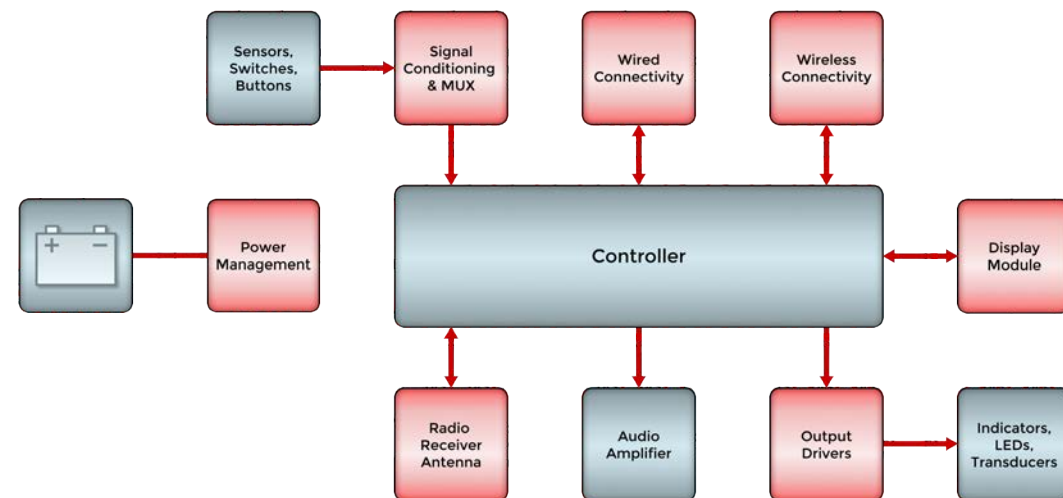
ESD Protection Devices

- ➔ ESD1524D3BHE3A
- ➔ ESD24VD3BHE3

Infotainment in Cabin

From clusters to center stacks and head-up displays, today's vehicles are equipped with screens and interfaces to enhance the driving experience through useful data for navigation and integrations with wifi and music or entertainment apps.

Block Diagram

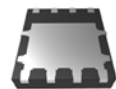


Recommended Products



Schottky Barrier Rectifiers

- ➔ SMD34PLQ
- ➔ SK36BQ-L
- ➔ SMD36PLQ
- ➔ SK36AQ-L
- ➔ SK36Q



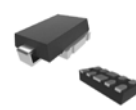
Small Signal MOSFETS

- ➔ 2N7002KDWBQ
- ➔ SI2102AHE3
- ➔ SI2310AHE3



TVS

- ➔ SMF24AQ
- ➔ SMA6J24AQ
- ➔ SMA6J36AQ
- ➔ SMBJ24AQ
- ➔ SMBJ36AQ
- ➔ SMCJ24CAQ
- ➔ SMCJ36AQ
- ➔ SMF36AQ



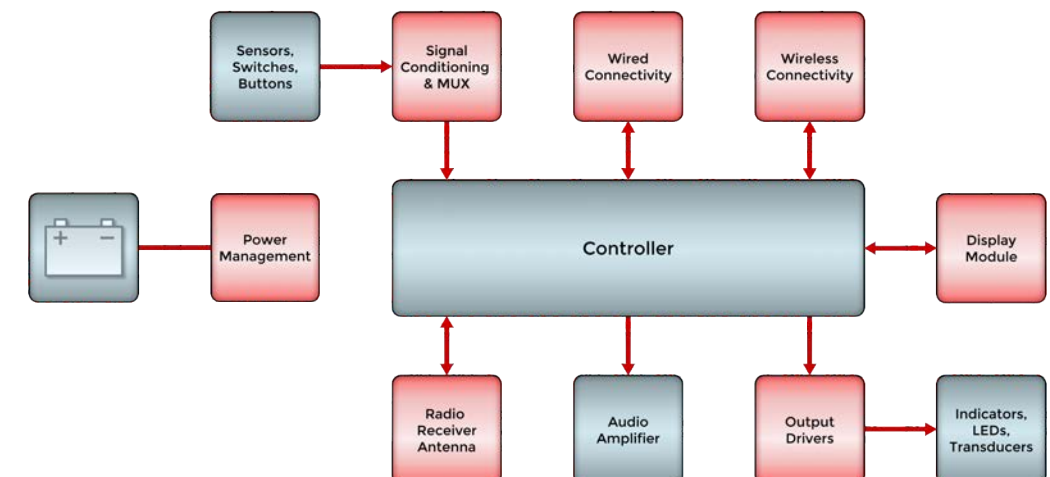
ESD Protection Devices

- ➔ ESD1524D3BHE3A
- ➔ ESD24VD3BHE3
- ➔ ESD27VD3BHE3
- ➔ ESDB5V0D3BHE3
- ➔ ESDULC5V0LBHE3
- ➔ ESDULC3V3LBHE3
- ➔ ESD12VD3BHE3
- ➔ ESDB5V0D3BHE3
- ➔ ESDULC8V0LBHE3
- ➔ ESDLC8V0LBHE3

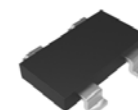
Instrument Cluster

The instrument cluster provides real-time, mission-critical communication to the driver. Ranging from 2D to 3D cockpits, these dashboard data centers provide fast, reliable readings essential for vehicle safety and performance.

Block Diagram



Recommended Products



Schottky Barrier Rectifiers

- ➔ SMD36HE1Q
- ➔ SMD24PLQ
- ➔ SK54AQ-L
- ➔ SK56BQ-L



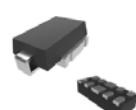
Small Signal MOSFETS

- ➔ 2N7002KDWBQ
- ➔ SI2102AHE3
- ➔ SI2310AHE3



TVS

- ➔ SMA6J60AQ
- ➔ SMBJ60AQ
- ➔ SMCJ14CAQ
- ➔ SMF14AQ
- ➔ SMF5.0AQ
- ➔ SMF12AQ



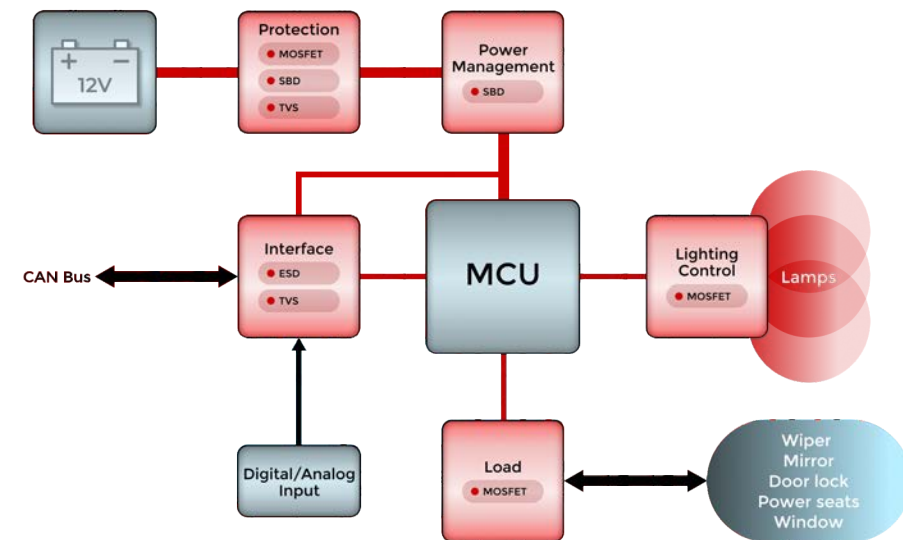
ESD Protection Devices

- ➔ ESD1524D3BHE3A
- ➔ ESD24VD3BHE3
- ➔ ESDB5V0D3BHE3
- ➔ ESD12VD3BHE3
- ➔ ESDSLC3V3D3B
- ➔ SRV33-4L
- ➔ ESDLC3V3D5

Body Control Module (BCM)

As the hub of the vehicle's systems, the BCM controls everything from wipers, mirrors, seats, and locks to exterior lighting and climate control. Effective design is a must to ensure every connected system reliably performs as needed while operating the vehicle.

Block Diagram

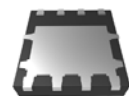


Recommended Products



Schottky Barrier Rectifiers

- ➔ SMD110PL
- ➔ SK36BQ-L
- ➔ SS24Q-L
- ➔ SMD16PLQ
- ➔ SMD36HE1Q



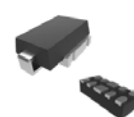
Power MOSFETS

- ➔ MCAC80P06YHE3
- ➔ MCAC130N04YHE3
- ➔ MCACL320N04YQ
- ➔ MCAC38N10YHE3



TVS

- ➔ SMA6J14CAHE3
- ➔ SMF5.0AQ
- ➔ SMF12AQ



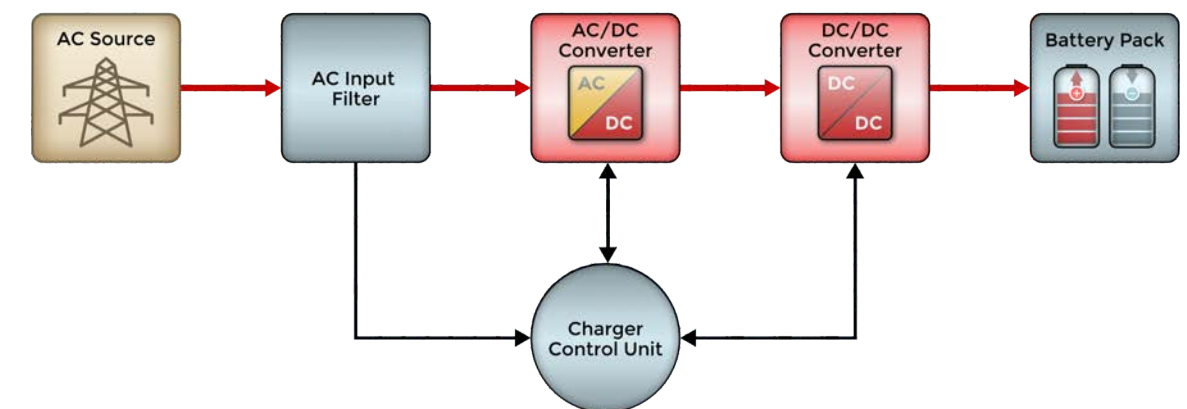
ESD Protection Devices

- ➔ ESDSB5V0D3BHE3
- ➔ ESD24VD3BHE3
- ➔ ESD1524D3BHE3A

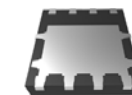
Fast EV Charger

Thanks to DC fast chargers, EV charging can rival the fueling convenience of gas-powered vehicles. These devices reduce charge times by as much as 80% compared to in-home and other commercial options.

Block Diagram



Recommended Products



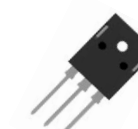
SiC MOSFETS

- ➔ SICW080N120Y
- ➔ SICW080N120Y4



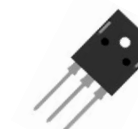
SiC Schottky Barrier Diodes (SBDs)

- ➔ SICB5060XY
- ➔ SICPT5060Y
- ➔ SICB20120Y
- ➔ SICPT40120YA



IGBT Discrete

- ➔ MIW75N65F



IGBT Modules

- ➔ MIP75R12E2TN
- ➔ MIP100R12E2TN



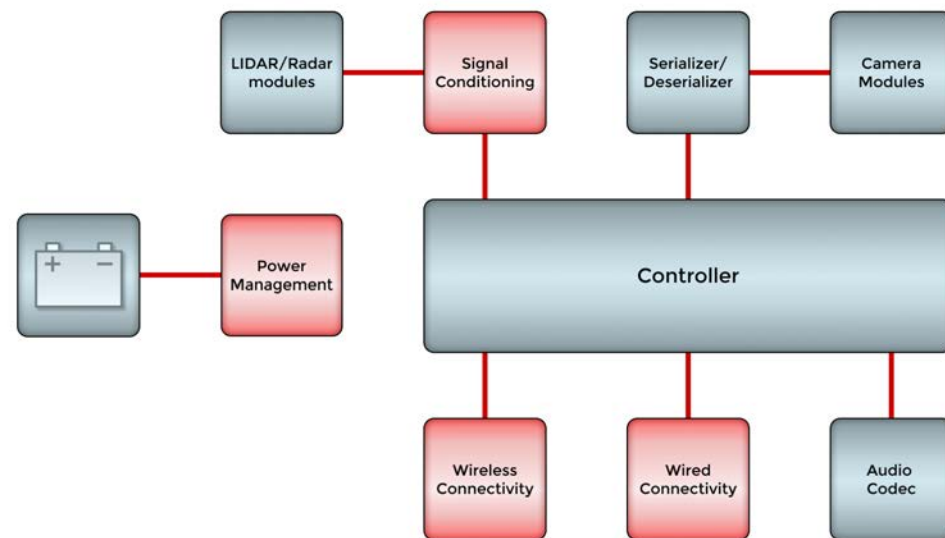
Power MOSFETS

- ➔ MSJPF20N65A

Advanced Driver Assistance System (ADAS) Sensor Module

Advanced driver assistance systems in modern vehicles utilize a combination of radar, LIDAR, and other sensing technologies to enhance safety — from lane assist and adaptive headlights to blind spot notifications and adaptive cruise control to fully autonomous functions.

Block Diagram



Recommended Products



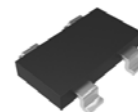
ESD Protection Devices

- ➔ ESD1524D3BHE3A
- ➔ ESD24VD3BHE3
- ➔ ESD27VD3BHE3
- ➔ ESDULC5V0LBHE3
- ➔ ESDULC3V3LBHE3
- ➔ ESDSBL5V0D5BHE3



TVS

- ➔ SMF24AQ
- ➔ SMF36AQ
- ➔ SMA6J24AQ
- ➔ SMA6J36AQ
- ➔ SMBJ24AQ
- ➔ SMBJ36AQ
- ➔ SMCJ24CAQ
- ➔ SMCJ36AQ



Schottky Barrier Rectifiers

- ➔ SMD34PLQ
- ➔ SMD36PLQ
- ➔ SK36AQ-L
- ➔ SK36BQ-L
- ➔ SK36Q