Features

- 4.7 Thru 200 Volt Voltage Range
- Glass Passivated Junction
- Available On Tape and Reel
- Halogen Free. “Green” Device (Note 1)
- Moisture Sensitivity Level 1
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant (Note2) ("P" Suffix Designates RoHS Compliant. See Ordering Information)

3.0 Watt Surface Mount Silicon Zener Diodes 4.7V to 200V

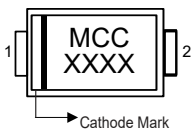
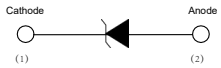
Maximum Ratings

- Operating Junction Temperature Range: -65°C to +150°C
- Storage Temperature Range: -65°C to +150°C
- Thermal Resistance : 226°C/W Junction to Ambient
- Thermal Resistance : 25°C/W Junction to Lead
- Thermal Resistance : 22°C/W Junction to Case

Parameter	Symbol	Rating	Conditions
Steady State Power Dissipation	P_D	3.0W	Note 3
Maximum Forward Voltage	V_F	1.5V	I_F=200mA

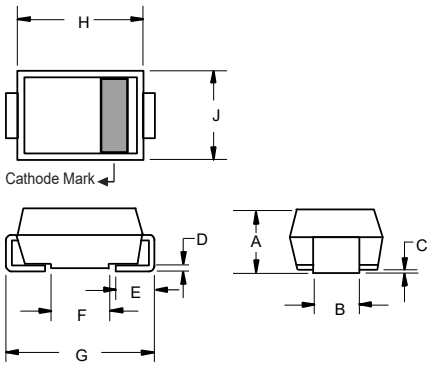
Note:
1.Halogen free "Green"products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
2.High Temperature Solder Exemption Applied, see EU Directive Annex 7a.
3.Mounted on 5.0mm^2 (1oz thick) land areas.Lead temperature at T_L=75ºC

Internal Structure

Description	Simplified outline	Graphic symbol
Uni-directional		

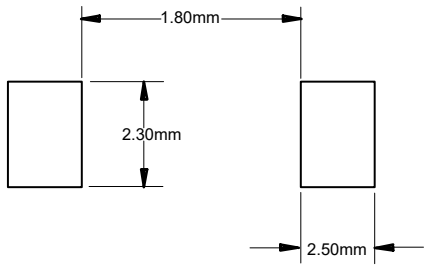
XXXX = Marking code

SMB (DO-214AA) (LEAD FRAME)



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.079	0.103	2.00	2.62	
B	0.075	0.087	1.91	2.21	
C	0.002	0.008	0.05	0.20	
D	0.006	0.012	0.15	0.31	
E	0.030	0.060	0.76	1.52	
F	0.065	0.091	1.65	2.32	
G	0.200	0.220	5.08	5.59	
H	0.160	0.191	4.06	4.85	
J	0.130	0.155	3.30	3.94	

Suggested Solder Pad Layout



Electrical Characteristics @ 25°C Unless Otherwise Specified

Part Number	Zener Voltage	Test Current	Maximum Dynamic Impedance Resistance			Maximum Reverse leakage Current		Marking Code
	VZ@IZT	IZT	ZZT at IZT	ZZK at IZK	IZK	IR	VR	
	Nom(V)	mA	Ω	Ω	mA	μA	V	
3SMBJ5917B	4.7	79.8	5	500	1	5	1.5	H17B
3SMBJ5918B	5.1	73.5	4	350	1	5	2	H18B
3SMBJ5919B	5.6	66.9	2	250	1	5	3	H19B
3SMBJ5920B	6.2	60.5	2	200	1	5	4	H20B
3SMBJ5921B	6.8	55.1	2.5	200	1	5	5.2	H21B
3SMBJ5922B	7.5	50	3	400	0.5	5	6	H22B
3SMBJ5923B	8.2	45.7	3.5	400	0.5	5	6.5	H23B
3SMBJ5924B	9.1	41.2	4	500	0.5	5	7	H24B
3SMBJ5925B	10	37.5	4.5	500	0.25	5	8	H25B
3SMBJ5926B	11	34.1	5.5	550	0.25	1	8.4	H26B
3SMBJ5927B	12	31.2	6.5	550	0.25	1	9.1	H27B
3SMBJ5928B	13	28.8	7	550	0.25	1	9.9	H28B
3SMBJ5929B	15	25	9	600	0.25	1	11.4	H29B
3SMBJ5930B	16	23.4	10	600	0.25	1	12.2	H30B
3SMBJ5931B	18	20.8	12	650	0.25	1	13.7	H31B
3SMBJ5932B	20	18.7	14	650	0.25	1	15.2	H32B
3SMBJ5933B	22	17	17.5	650	0.25	1	16.7	H33B
3SMBJ5934B	24	15.6	19	700	0.25	1	18.2	H34B
3SMBJ5935B	27	13.9	23	700	0.25	1	20.6	H35B
3SMBJ5936B	30	12.5	28	750	0.25	1	22.8	H36B
3SMBJ5937B	33	11.4	33	800	0.25	1	25.1	H37B
3SMBJ5938B	36	10.4	38	850	0.25	1	27.4	H38B
3SMBJ5939B	39	9.6	45	900	0.25	1	29.7	H39B
3SMBJ5940B	43	8.7	53	950	0.25	1	32.7	H40B
3SMBJ5941B	47	8	67	1000	0.25	1	35.8	H41B
3SMBJ5942B	51	7.3	70	1100	0.25	1	38.8	H42B
3SMBJ5943B	56	6.7	86	1300	0.25	1	42.6	H43B
3SMBJ5944B	62	6	100	1500	0.25	1	47.1	H44B
3SMBJ5945B	68	5.5	120	1700	0.25	1	51.7	H45B
3SMBJ5946B	75	5	140	2000	0.25	1	56	H46B
3SMBJ5947B	82	4.6	160	2500	0.25	1	62.2	H47B
3SMBJ5948B	91	4.1	200	3000	0.25	1	69.2	H48B
3SMBJ5949B	100	3.7	250	3100	0.25	1	76	H49B
3SMBJ5950B	110	3.4	300	4000	0.25	1	83.6	H50B
3SMBJ5951B	120	3.1	380	4500	0.25	1	91.2	H51B
3SMBJ5952B	130	2.9	450	5000	0.25	1	98.8	H52B
3SMBJ5953B	150	2.5	600	6000	0.25	1	114	H53B
3SMBJ5954B	160	2.3	700	6500	0.25	1	121.6	H54B
3SMBJ5955B	180	2.1	900	7000	0.25	1	136.8	H55B
3SMBJ5956B	200	1.9	1200	8000	0.25	1	152	H56B

Note : 4. TOLERANCE AND VOLTAGE DESIGNATION - The type numbers listed indicate a tolerance of +/-5%

Curve Characteristics

Fig. 1 - Power Derating Curve

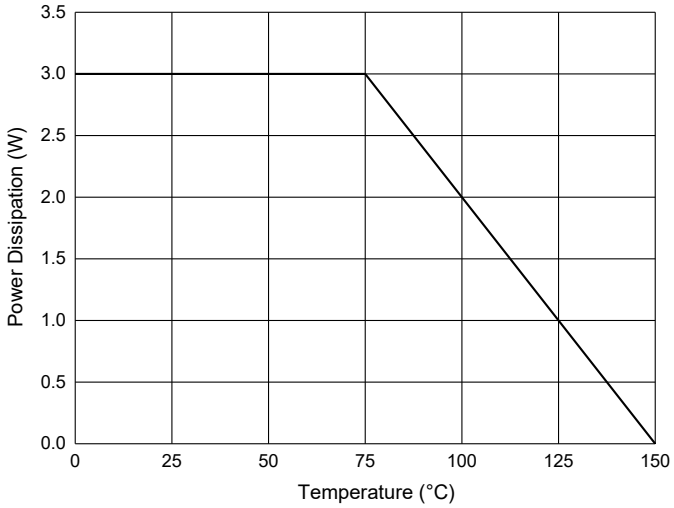


Fig. 2 - Typical Zener Breakdown Characteristics

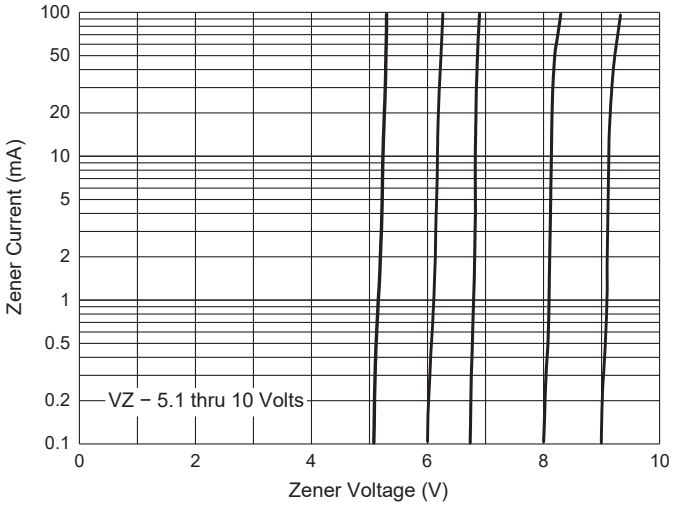


Fig. 3 - Typical Zener Breakdown Characteristics

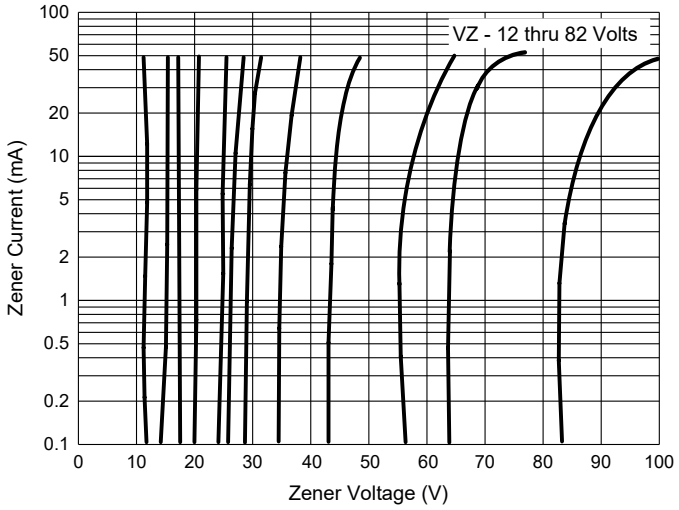


Fig. 4 - Typical Zener Breakdown Characteristics

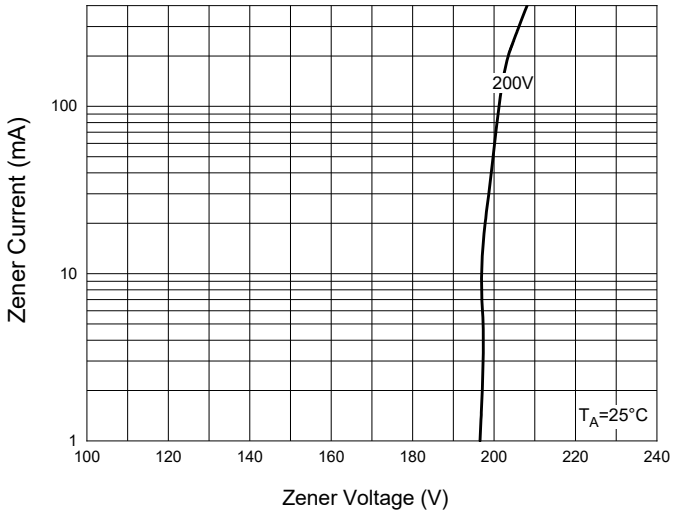
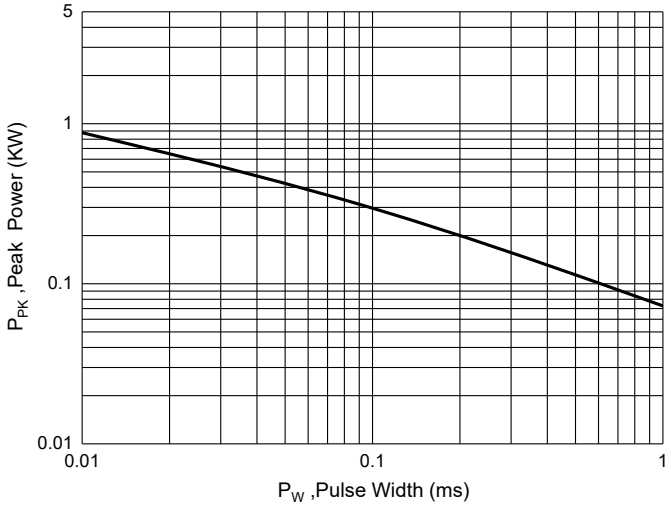


Fig. 5 - Peak Pulse Power Rating Curve



Ordering Information

Device	Packing
Part Number-TP	Tape&Reel:3Kpcs/Reel