

Features

- Halogen Free. "Green" Device (Note 1)
- High Current Capability
- Low Profile Package
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1
- Lead Free Finish/RoHS Compliant (Note 2) ("P" Suffix Designates RoHS Compliant. See Ordering Information)

Maximum Ratings @ 25°C (Unless Otherwise Specified)

Parameter	Symbol	Value									Unit
		SS 12FL	SS 13FL	SS 14FL	SS 15FL	SS 16FL	SS 18FL	SS 110FL	SS 1150FL	SS 1200FL	
Peak Repetitive Reverse Voltage	V _{RRM}	20	30	40	50	60	80	100	150	200	V
Working Peak Reverse Voltage	V _{RWM}										
DC Blocking Voltage	V _R										
RMS Reverse Voltage	V _{RMS}	14	21	28	35	42	56	70	105	140	V
Average Rectified Forward Current	I _{F(AV)}	1									A
Non-Repetitive Peak Surge Current @ 8.3ms Half Sine Wave	I _{FSM}	30									A
Current Squared Time @1ms≤t≤8.3ms	I ² t	3.735									A ² s

Marking code

Part Number	Marking Code
SS12FL	SS12
SS13FL	SS13
SS14FL	SS14
SS15FL	SS15
SS16FL	SS16
SS18FL	SS18
SS110FL	SS110
SS1150FL	S1150
SS1200FL	S1200

Internal Structure

Pin	Description	Simplified Outline	Graphic Symbol
1	Cathode		
2	Anode		

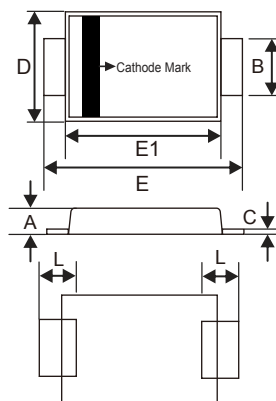
XXXX = Marking code

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.

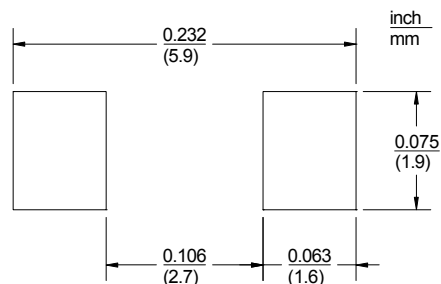
1 Amp
Gi fZUW'Ac i bh
GW ch_mf YWjZyf
&0 to &00 Volts

DO-221AC(SMA-FL)



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.035	0.049	0.90	1.25	
B	0.049	0.065	1.25	1.65	
C	0.004	0.016	0.10	0.40	
D	0.089	0.116	2.25	2.95	
E	0.173	0.220	4.40	5.60	
E1	0.126	0.181	3.20	4.60	
L	0.020	0.059	0.50	1.50	

Suggested Solder Pad Layout



Thermal characteristics

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
T_J	Operating Junction Temperature Range	SS12FL ~ SS14FL	-55		125	°C
T_J	Operating Junction Temperature Range	SS15FL ~ SS1200FL	-55		150	°C
T_{stg}	Storage Temperature Range		-55		150	°C
$R_{th(J-L)}$	Thermal Resistance from Junction to Lead	Note 1		18		°C/W
$R_{th(J-A)}$	Thermal Resistance from Junction to Ambient	Note 1		70		°C/W

Note:

1. Mounted on P.C.B. with 8mm*8mm copper pad areas.

Electrical Characteristics @ 25°C Unless Otherwise Specified

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Forward Voltage SS12FL ~ SS14FL SS15FL ~ SS16FL SS18FL ~ SS110FL SS1150FL ~ SS1200FL	V_F	$I_F=1A; T_J=25^{\circ}C$			0.50 0.70 0.85 0.90	V
Reverse Current SS12FL ~ SS16FL SS18FL ~ SS1200FL	I_R	at Rated $V_R; T_J=25^{\circ}C$ at Rated $V_R; T_J=125^{\circ}C$ at Rated $V_R; T_J=25^{\circ}C$ at Rated $V_R; T_J=125^{\circ}C$			0.1 20 0.01 5	mA
Junction Capacitance SS12FL ~ SS14FL SS15FL ~ SS16FL SS18FL ~ SS110FL SS1150FL ~ SS1200FL	C_J	$V_R=4V; f=1MHz; T_J=25^{\circ}C$		125 90 60 50		pF

Curve Characteristics

Fig. 1 - Forward Current Derating Curve

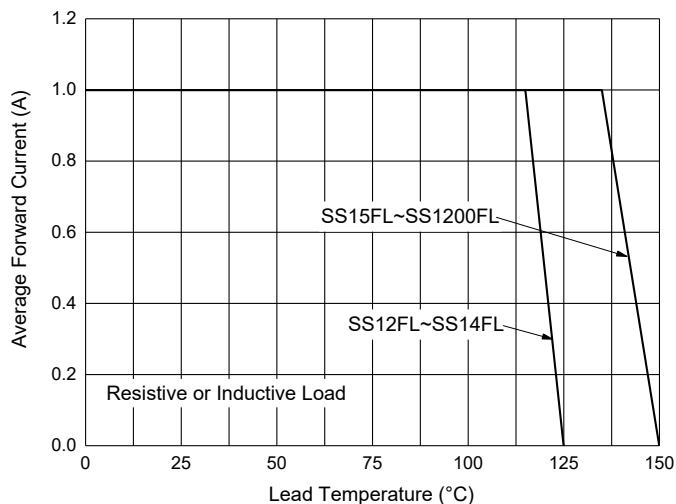


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

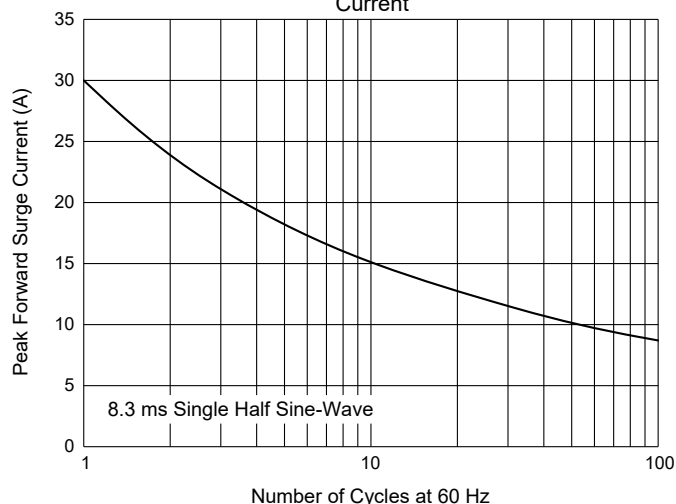


Fig. 3 - Typical Forward Characteristics

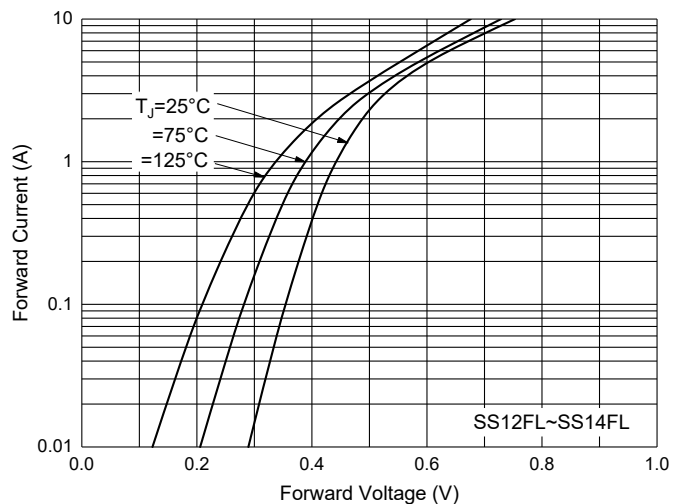


Fig. 4 - Typical Reverse Leakage Characteristics

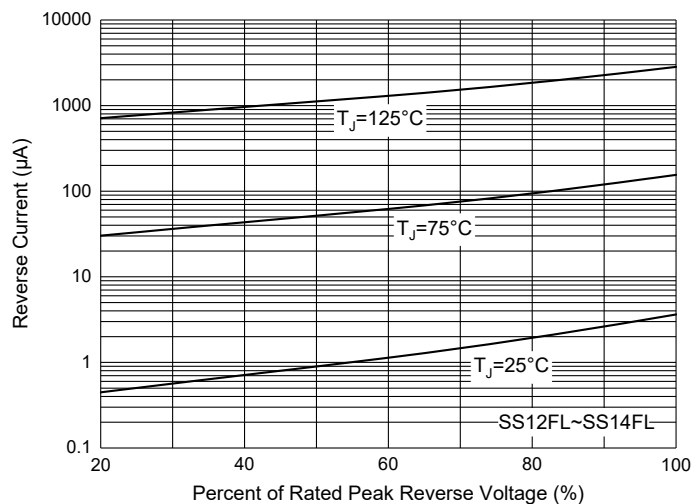


Fig. 5 - Typical Forward Characteristics

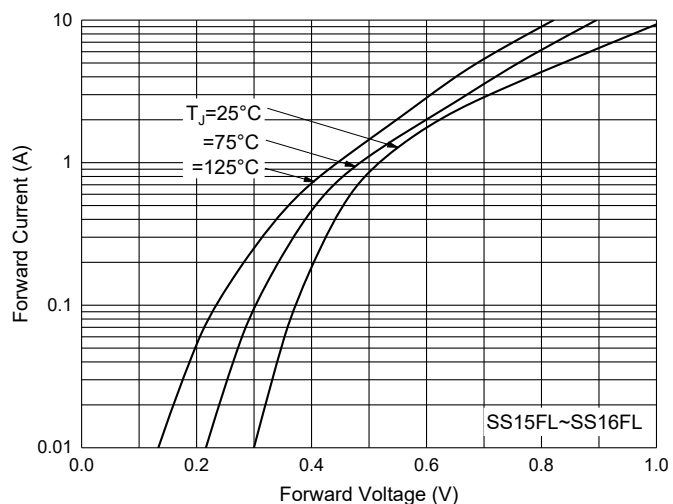
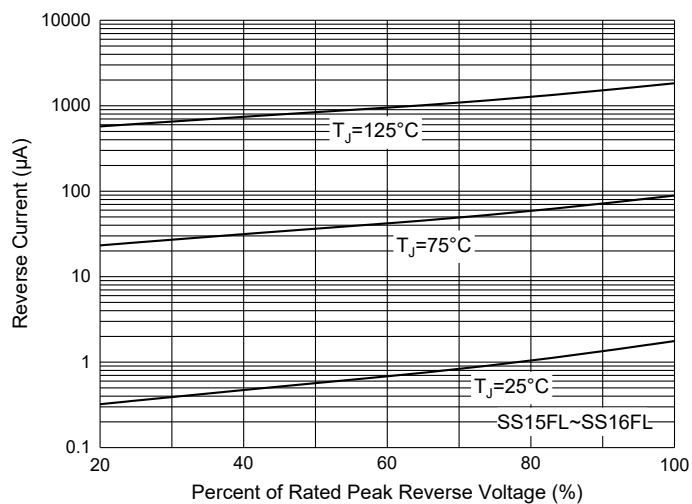


Fig. 6 - Typical Reverse Leakage Characteristics



Curve Characteristics

Fig. 7 - Typical Forward Characteristics

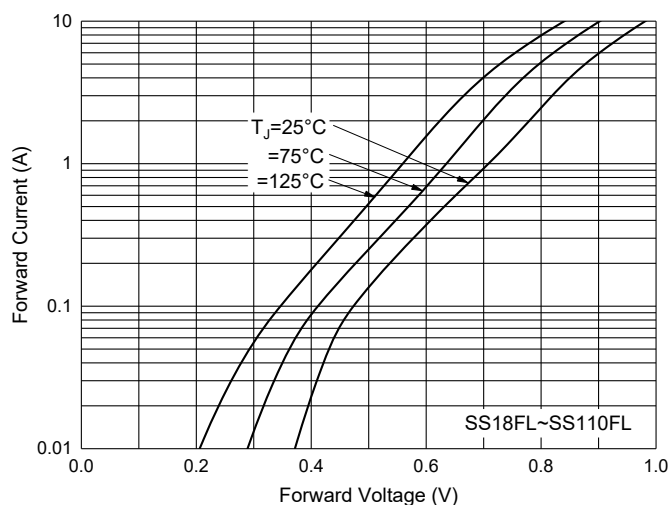


Fig. 8 - Typical Reverse Leakage Characteristics

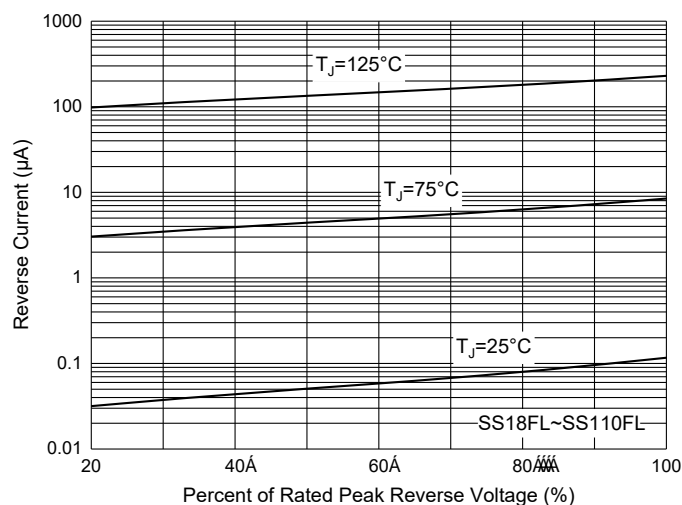


Fig. 9 - Typical Forward Characteristics

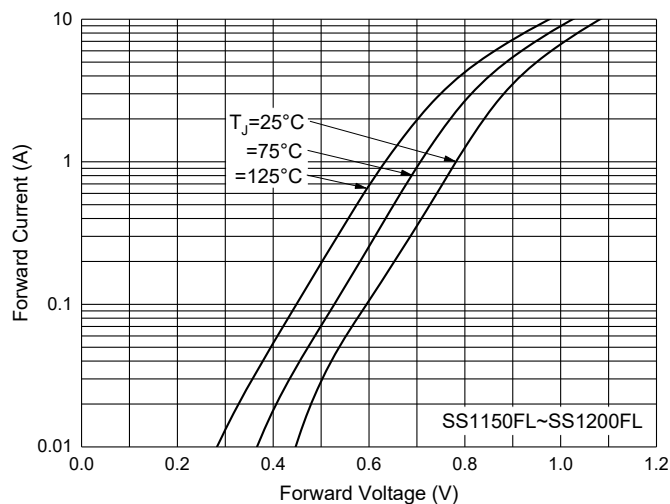


Fig. 10 - Typical Reverse Leakage Characteristics

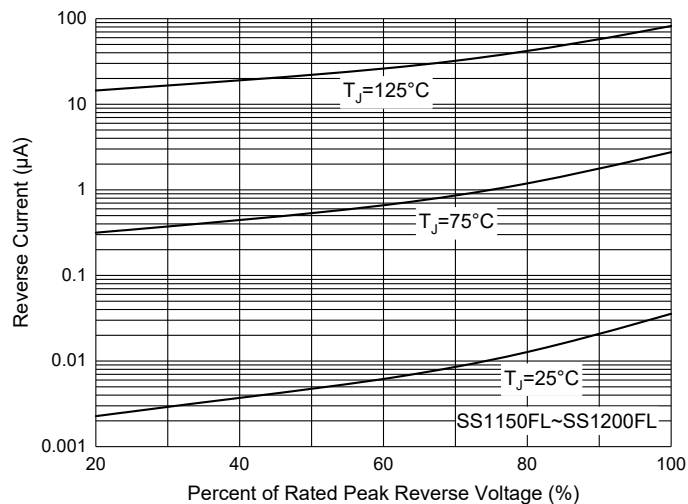
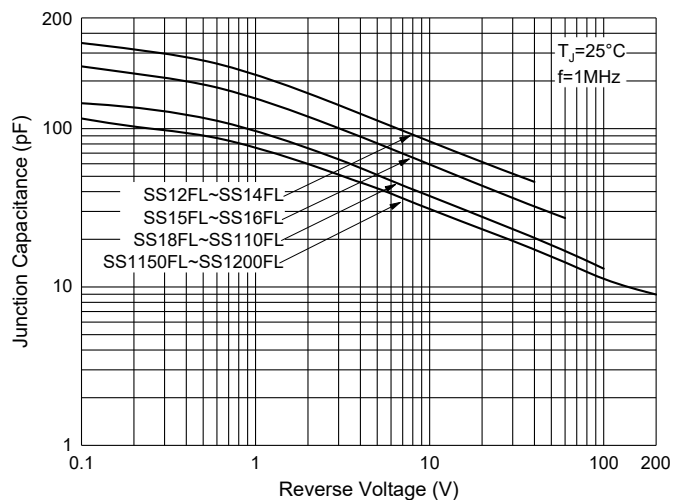


Fig. 11 - Typical Capacitance Characteristics



Ordering Information

Device	Packing
Part Number-TP	Tape&Reel:10Kpcs/Reel

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