

Features

- Halogen Free. "Green" Device (Note 1)
- For Surface Mount Applications
- Very Low Profile
- High Surge Capability
- 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
		SMD 32PL	SMD 34PL	SMD 36PL	SMD 38PL	SMD 310PL	SMD 315PL	SMD 320PL	
Peak Repetitive Reverse Voltage	V_{RRM}	20	40	60	80	100	150	200	V
Working Peak Reverse Voltage	V_{RWM}								
DC Blocking Voltage	V_R								
RMS Reverse Voltage	V_{RMS}	14	28	42	56	70	105	140	V
Average Rectified Forward Current	$I_{F(AV)}$	3							A
Non-Repetitive Peak Surge Current @ 8.3ms Half Sine Wave	I_{FSM}	80							A
Current Squared Time @1ms≤t≤8.3ms	I^2t	26.56							A ² s

Marking Code

Part Number	Marking Code
SMD32PL	SM32
SMD34PL	SM34
SMD36PL	SM36
SMD38PL	SM38
SMD310PL	SM310
SMD315PL	SM315
SMD320PL	SM320

Internal Structure

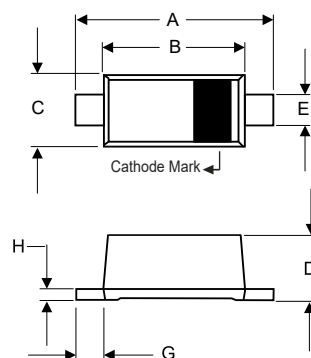
Pin	Description	Simplified Outline	Graphic Symbol
1	Cathode	 XXXX = Marking Code	
2	Anode		

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 Amp Schottky Rectifier 20 to 200 Volts

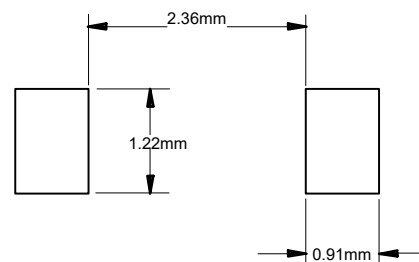
SOD-123FL



DIMENSIONS

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.130	0.152	3.30	3.85	
B	0.100	0.122	2.55	3.10	
C	0.055	0.075	1.40	1.90	
D	0.035	0.053	0.90	1.35	
E	0.020	0.041	0.50	1.05	
G	0.010	----	0.25	----	
H	----	0.010	----	0.25	

SUGGESTED SOLDER PAD LAYOUT



Thermal characteristics

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
T_J	Operating Junction Temperature Range	SMD32PL~SMD34PL	-55		125	°C
T_J	Operating Junction Temperature Range	SMD36PL~SMD320PL	-55		150	°C
T_{stg}	Storage Temperature Range		-55		150	°C
$R_{th(J-L)}$	Thermal Resistance from Junction to Lead	Note 1		35		°C/W
$R_{th(J-A)}$	Thermal Resistance from Junction to Ambient	Note 1		85		°C/W

Note:

1. Mounted on P.C.B. with 3.0 mm x 3.0 mm copper pad areas.

Electrical Characteristics @ 25°C Unless Otherwise Specified

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Forward Voltage SMD32PL~SMD34PL SMD36PL SMD38PL~SMD310PL SMD315PL~SMD320PL	V_F	$I_F=3A; T_J=25^{\circ}C$			0.50 0.65 0.85 0.90	V
Reverse Current SMD32PL~SMD36PL SMD38PL~SMD320PL	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 SMD32PL~SMD34PL SMD36PL SMD38PL~SMD310PL SMD315PL~SMD320PL	C_J	$V_R=4V; f=1MHz; T_J=25^{\circ}C$		150 130 95 60		pF

Curve Characteristics

Fig. 1 - Forward Current Derating Curve

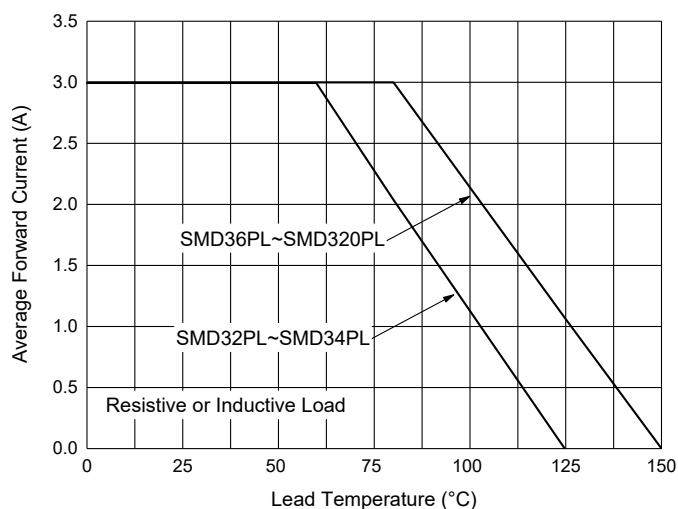


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

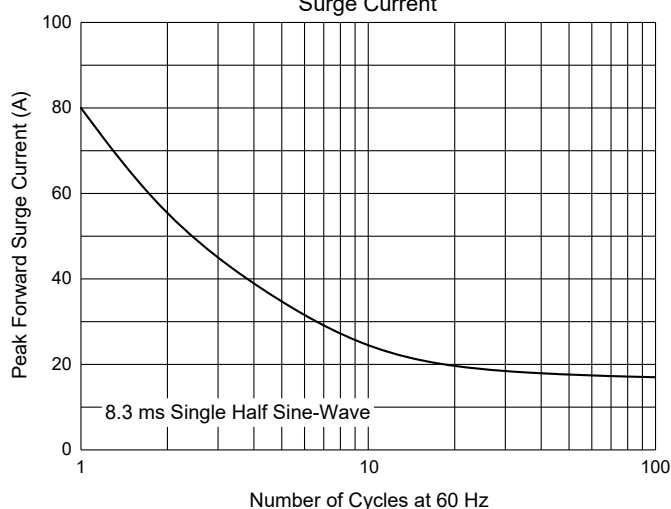


Fig. 3 - Typical Forward Characteristics

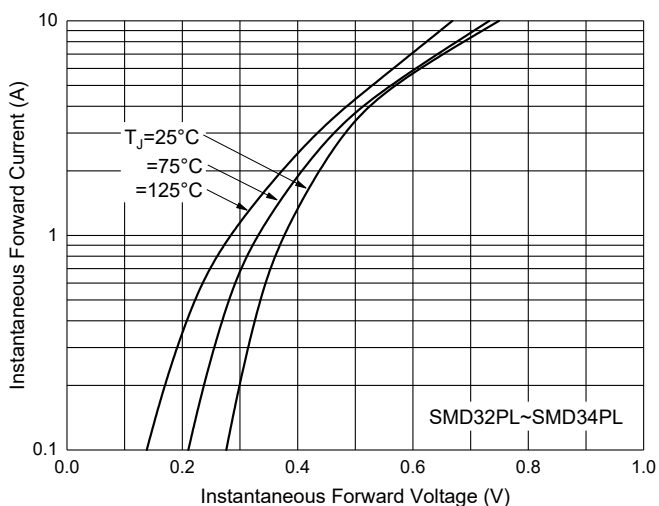


Fig. 4 - Typical Forward Characteristics

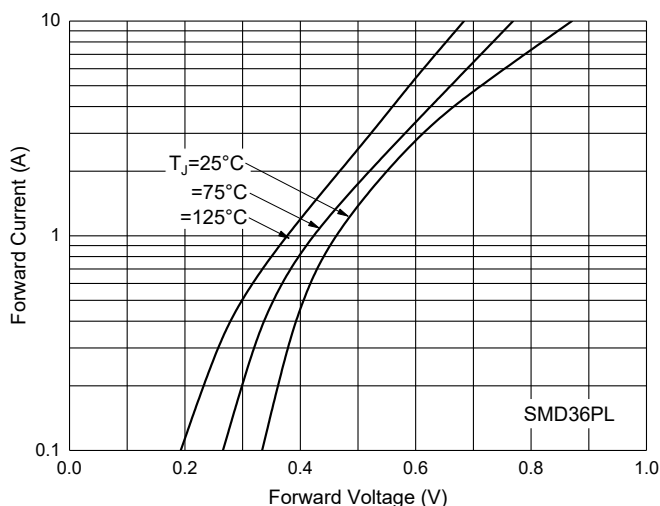


Fig. 5 - Typical Forward Characteristics

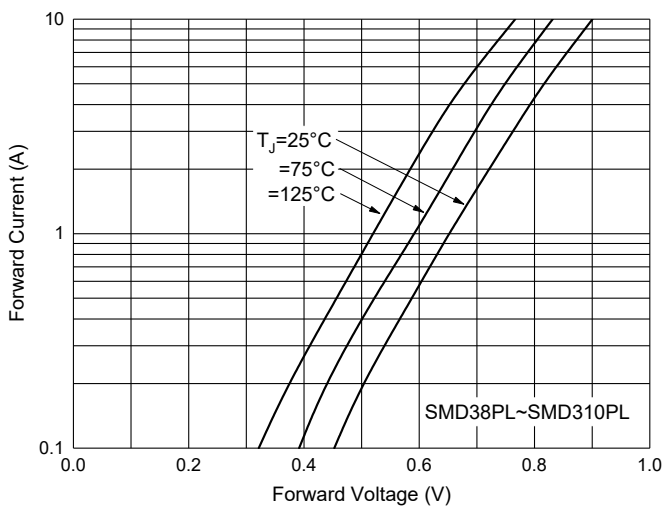
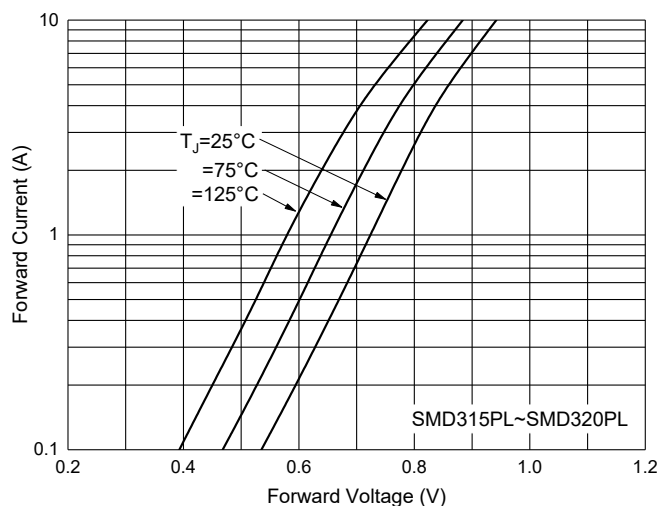


Fig. 6 - Typical Forward Characteristics



Curve Characteristics

Fig. 7 - Typical Reverse Leakage Characteristics

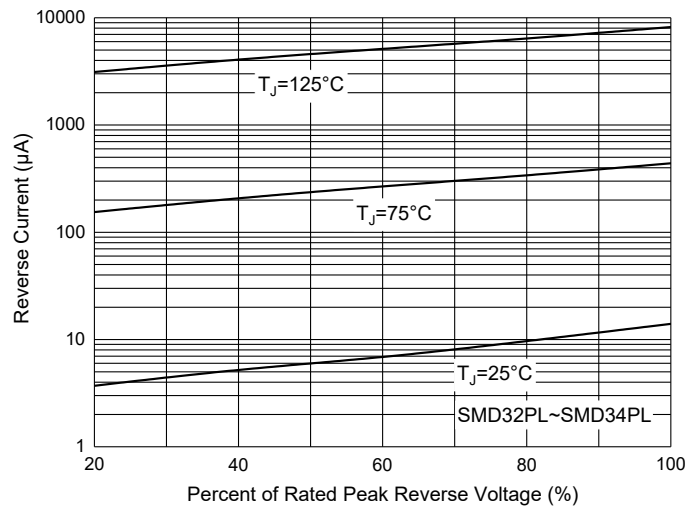


Fig. 8 - Typical Reverse Leakage Characteristics

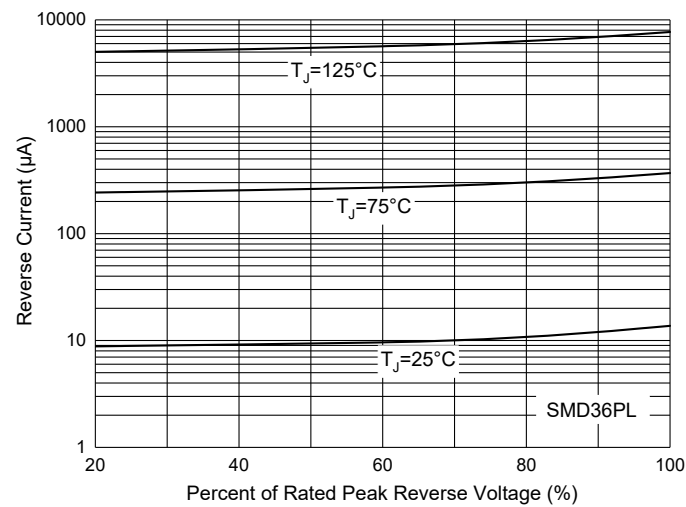


Fig. 9 - Typical Reverse Leakage Characteristics

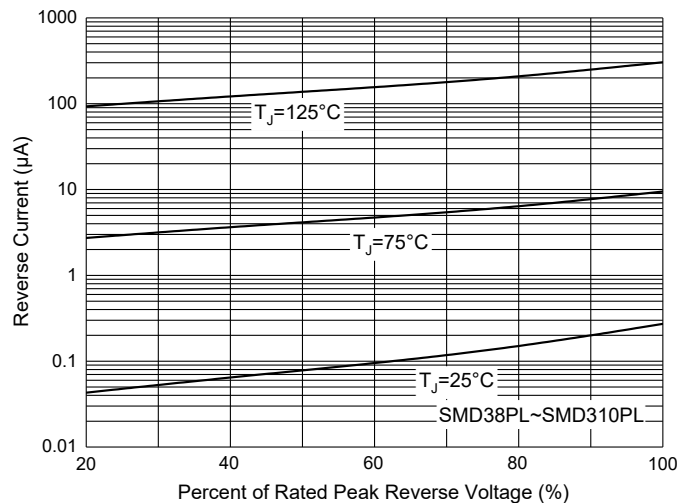


Fig. 10 - Typical Reverse Leakage Characteristics

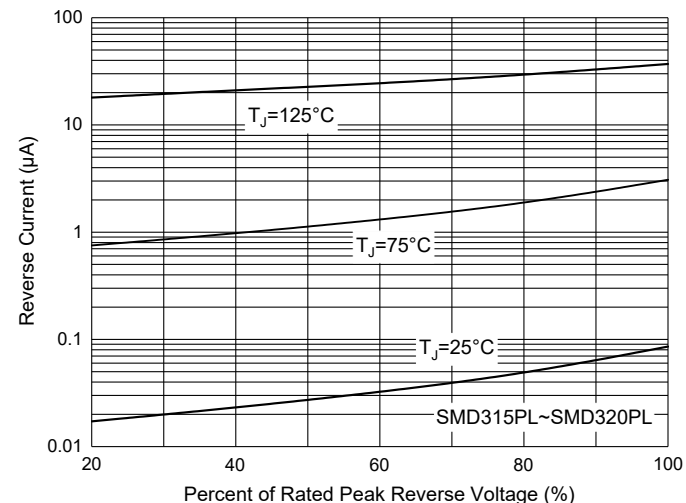
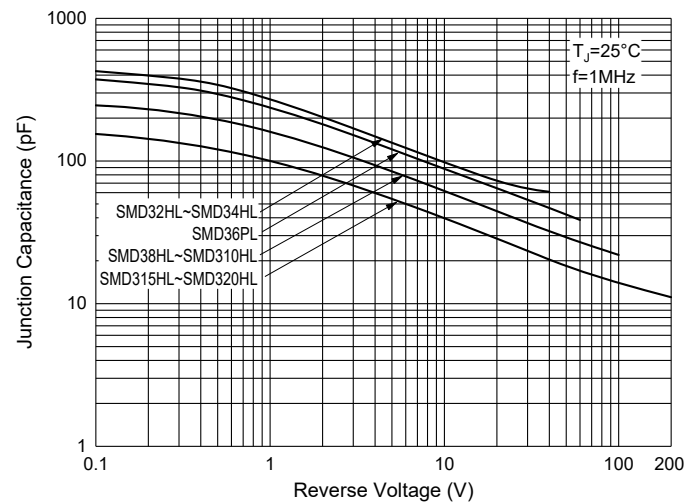


Fig. 11 - Typical Capacitance Characteristics



Ordering Information

Device	Packing
Part Number-TP	Tape&Reel:2.5Kpcs/Reel

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