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)

1 Amp Surface Mount Schottky Rectifier 50 to 200 Volts

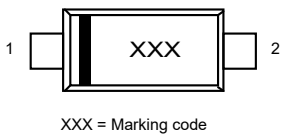
Maximum Ratings @ 25°C (Unless Otherwise Specified)

Parameter	Symbol	Value						Unit
		SMD 15PL	SMD 16PL	SMD 18PL	SMD 110PL	SMD 1150PL	SMD 1200PL	
Peak Repetitive Reverse Voltage	V_{RRM}	50	60	80	100	150	200	V
Working Peak Reverse Voltage	V_{RWM}							
DC Blocking Voltage	V_R							
RMS Reverse Voltage	V_{RMS}	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^2t	3.735						A^2s

Marking code

Part Number	Marking Code
SMD15PL	D5
SMD16PL	D6
SMD18PL	D8
SMD110PL	D10
SMD1150PL	D15
SMD1200PL	D20

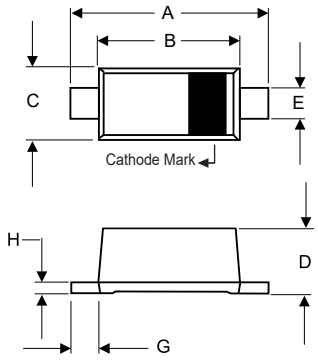
Internal Structure

Pin	Description	Simplified Outline	Graphic Symbol
1	Cathode	 XXX = 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.

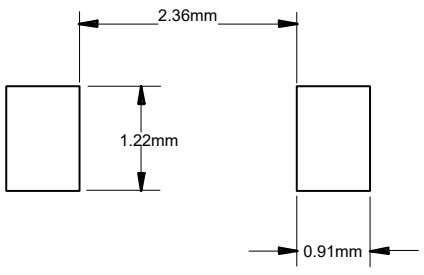
2. High temperature solder exemption applied, see EU directive annex 7a.

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		-55		150	°C
T_{stg}	Storage Temperature Range		-55		150	°C
$Rth_{(J-L)}$	Thermal Resistance from Junction to Lead	Note 1		25		°C/W
$Rth_{(J-A)}$	Thermal Resistance from Junction to Ambient	Note 1		88		°C/W

Note:
1.Mounted on P.C.B. with 5mm*5mm copper pad areas.

Electrical Characteristics @ 25°C Unless Otherwise Specified

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Forward Voltage						
SMD15PL~SMD16PL	V_F	I_F=1A;T_J=25°C			0.70	V
SMD18PL~SMD1150PL					0.85	
SMD1200PL					0.95	
Reverse Current						
SMD15PL~SMD16PL	I_R	at Rated V_R;T_J=25°C			0.1	mA
		at Rated V_R;T_J=125°C			20	
SMD18PL~SMD1200PL		at Rated V_R;T_J=25°C			0.01	
		at Rated V_R;T_J=125°C			5	
Junction Capacitance						
SMD15PL~SMD16PL	C_J	V_R=4V;f=1MHz;T_J=25°C		40		pF
SMD18PL~SMD110PL				30		
SMD1150PL~SMD1200PL				20		

Curve Characteristics

Fig. 1 - Forward Current Derating Curve

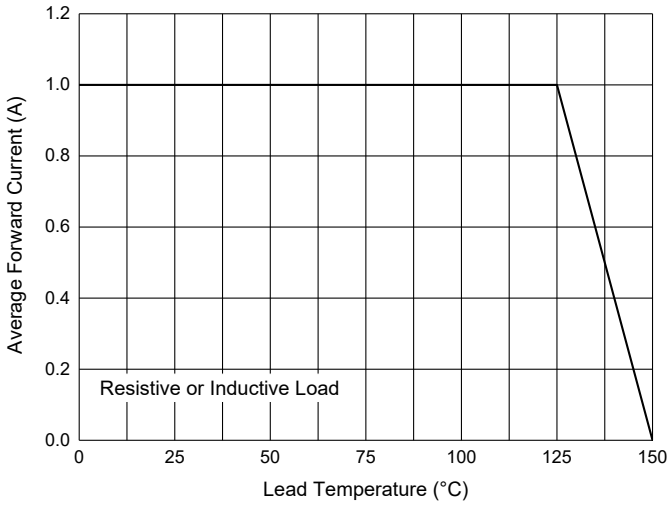


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

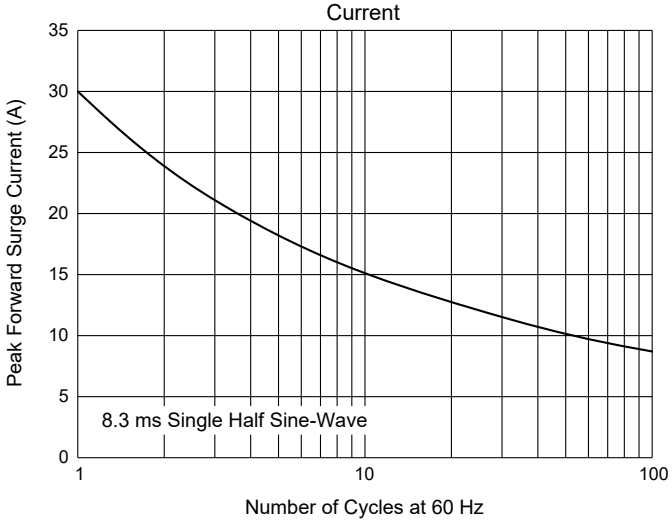


Fig. 3 - Typical Forward Characteristics

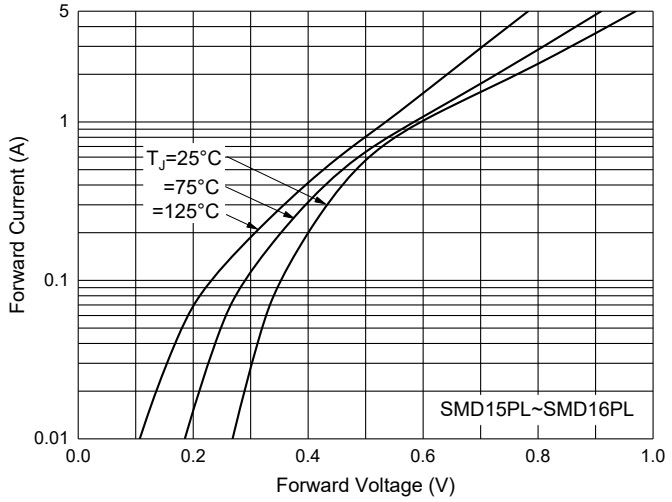


Fig. 4 - Typical Reverse Leakage Characteristics

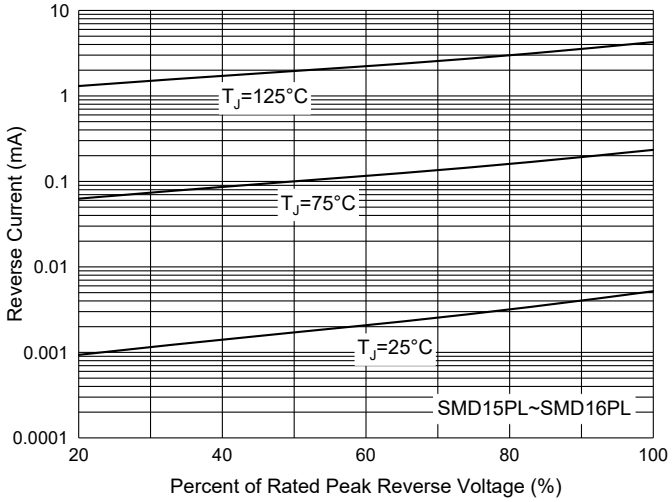


Fig. 5 - Typical Forward Characteristics

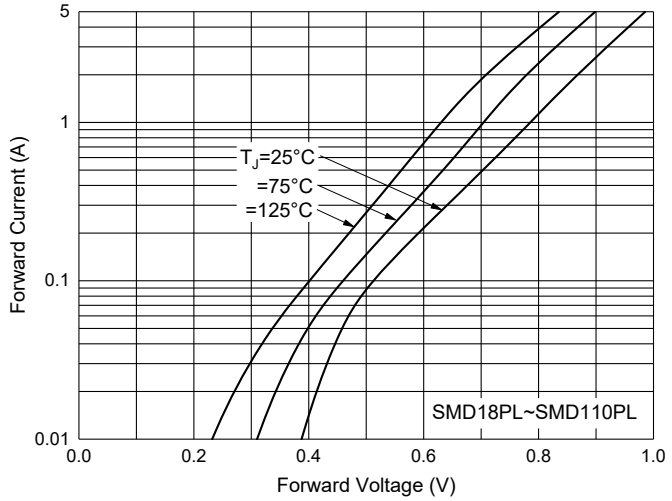
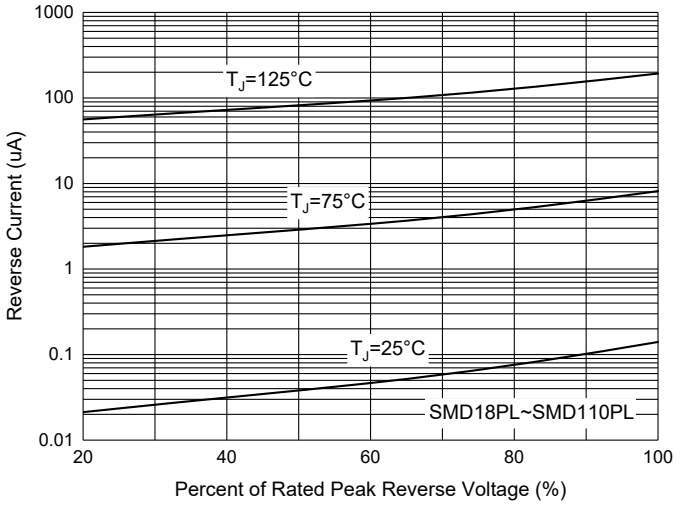


Fig. 6 - Typical Reverse Leakage Characteristics



Curve Characteristics

Fig. 7 - Typical Forward Characteristics

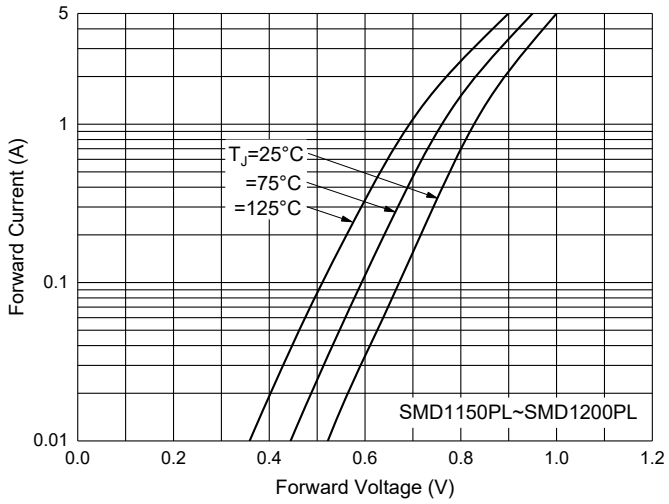


Fig. 8 - Typical Reverse Leakage Characteristics

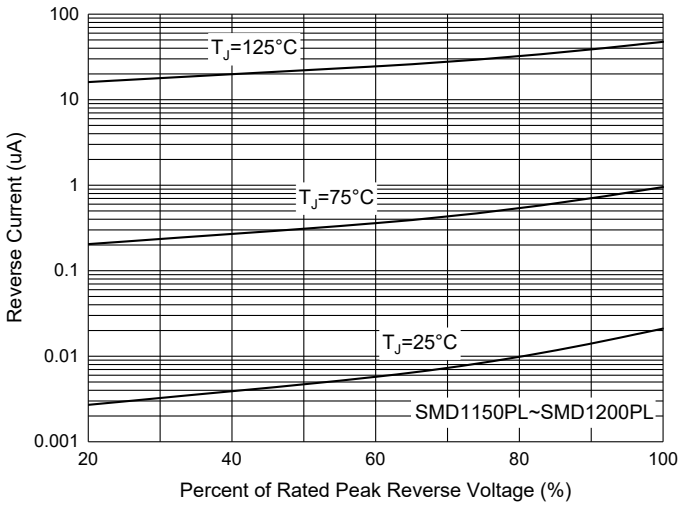


Fig. 9 - Typical Capacitance Characteristics

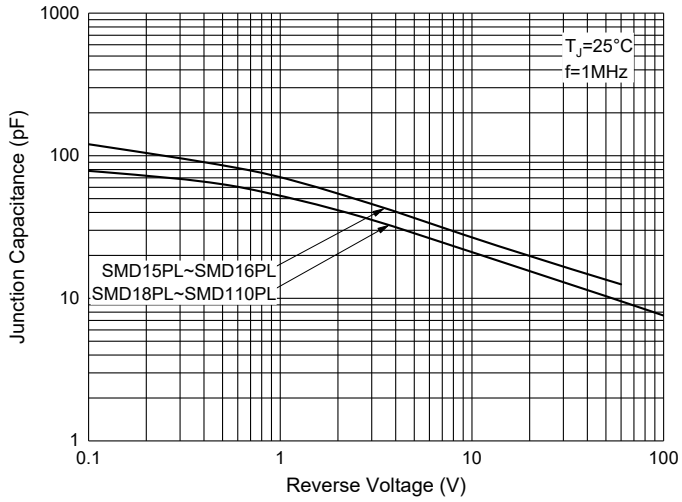
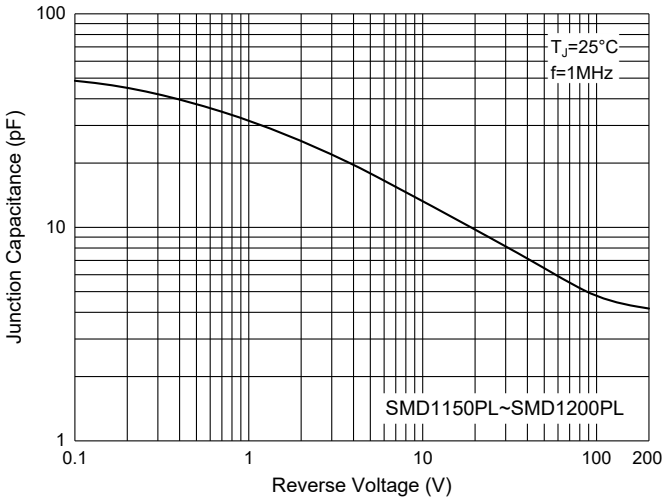


Fig. 10 - Typical Capacitance Characteristics



Ordering Information

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

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Micro Commercial Components (MCC):

SMD1200PL-TP SMD1150PL-TP SMD18PL-TP SMD16PL-TP SMD110PL-TP SMD1150PL-TPS02 SMD110PL-TP-HF SMD1200PL-TP-B002