Features

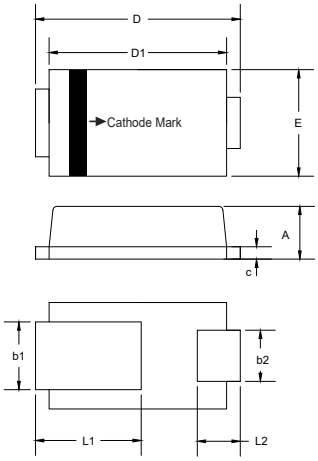
- Halogen Free. "Green" Device (Note 1)
- Low Profile Package
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1
- Lead Free Finish/RoHS Compliant (Note 2)("P" Suffix Designates RoHS Compliant. See Ordering Information)

1 Amp Surface Mount Schottky Rectifier 100 to 200 Volts

Maximum Ratings @ 25°C (Unless Otherwise Specified)

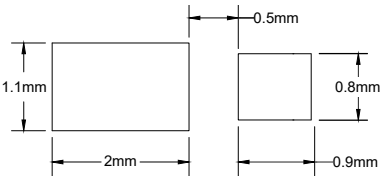
Parameter	Symbol	Value		Unit
		SMD110PE	SMD120PE	
Peak Repetitive Reverse Voltage	V_{RRM}	100	200	V
Working Peak Reverse Voltage	V_{RWM}			
DC Blocking Voltage	V_R			
RMS Reverse Voltage	V_{RMS}	70	140	V
Average Rectified Forward Current @ T_L=150°C	$I_{F(AV)}$	1		A
Non−Repetitive Peak Surge Current @8.3ms Half Sine Wave	I_{FSM}	30		A
Current Squared Time @ 1ms≤t≤8.3ms	I^2t	3.735		A^2s

SOD-323HE



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.024	0.029	0.60	0.73	
b1	0.030	0.039	0.75	1.00	
b2	0.022	0.030	0.55	0.75	
c	0.004	0.010	0.10	0.25	
D	0.091	0.106	2.30	2.70	
D1	0.083	0.091	2.10	2.30	
E	0.047	0.055	1.20	1.40	
L1	0.043	0.059	1.10	1.50	
L2	0.020	0.028	0.50	0.70	

SUGGESTED SOLDER PAD LAYOUT



Marking code

Part Number	Marking code
SMD110PE	110
SMD120PE	120

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.

Thermal characteristics

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
T_J	Operating Junction Temperature Range		-55		175	°C
T_{stg}	Storage Temperature Range		-55		175	°C
$Rth_{(J-L)}$	Thermal Resistance from Junction to Lead	Note 1		25		°C/W
$Rth_{(J-C)}$	Thermal Resistance from Junction to Case	Note 1		20		°C/W
$Rth_{(J-A)}$	Thermal Resistance from Junction to Ambient	Note 1		105		°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						
SMD110PE	V_F	I_F=0.5A;T_J=25°C		0.72		V
		I_F=0.5A;T_J=125°C		0.58		
		I_F=1A;T_J=25°C		0.77	0.85	
		I_F=1A;T_J=125°C		0.63		
SMD120PE		I_F=0.5A;T_J=25°C		0.77		
		I_F=0.5A;T_J=125°C		0.63		
		I_F=1A;T_J=25°C		0.82	0.90	
		I_F=1A;T_J=125°C		0.69		
Reverse Current						
SMD110PE	I_R	at Rated V_R;T_J=25°C		0.02	10	uA
		at Rated V_R;T_J=125°C		7.5	500	
SMD120PE		at Rated V_R;T_J=25°C		0.005	10	
		at Rated V_R;T_J=125°C		5.5	500	
Junction Capacitance						
SMD110PE	C_J	V_R=4V;f=1MHz;T_J=25°C		30		pF
SMD120PE				20		

Curve Characteristics

Fig. 1 - Forward Current Derating Curve

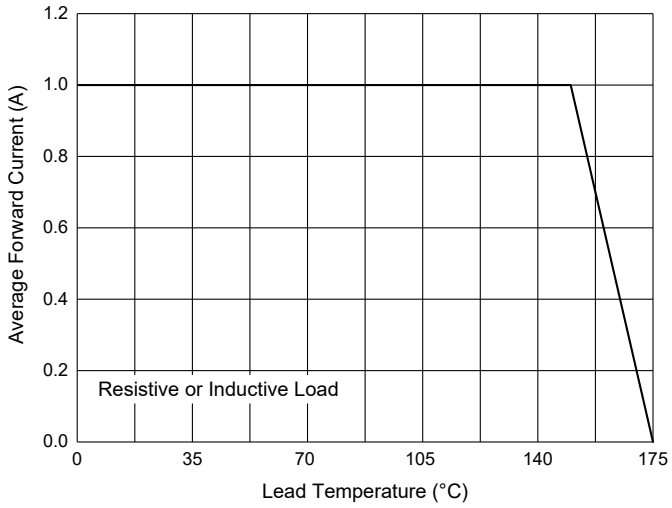


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

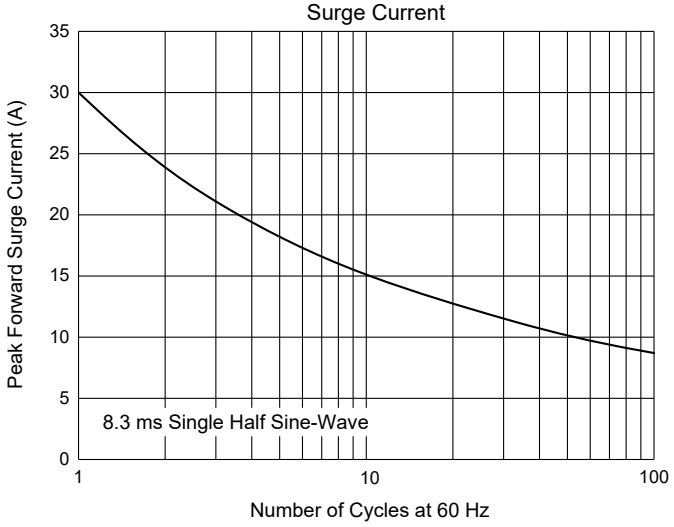


Fig. 3 - Typical Forward Characteristics

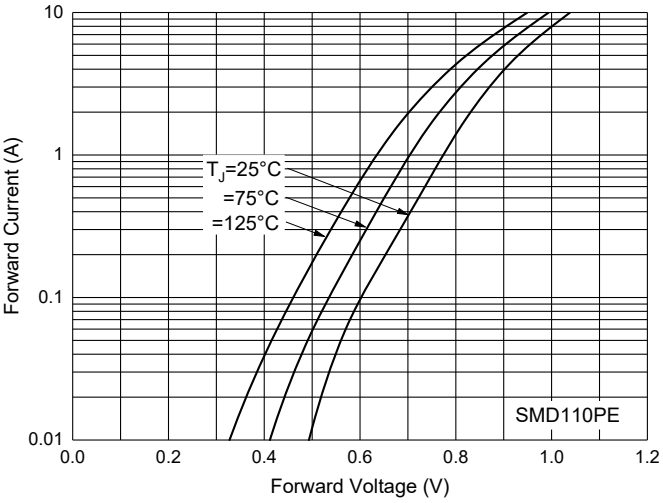


Fig. 4 - Typical Forward Characteristics

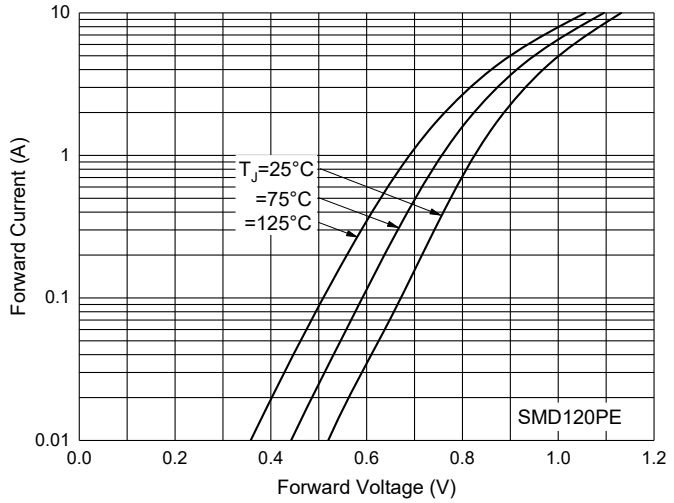


Fig. 5 - Typical Reverse Leakage Characteristics

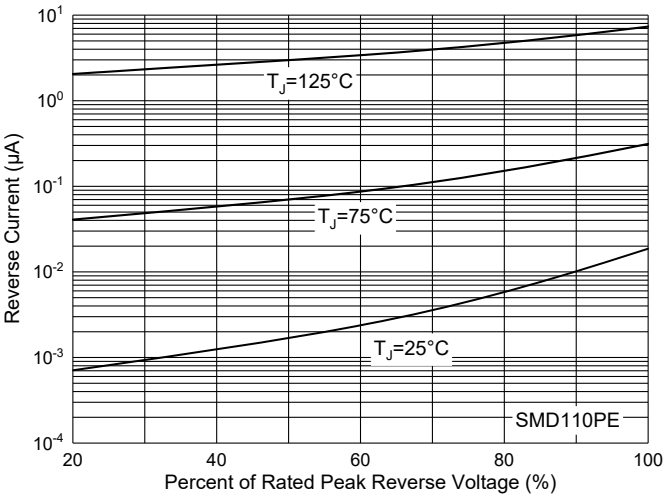
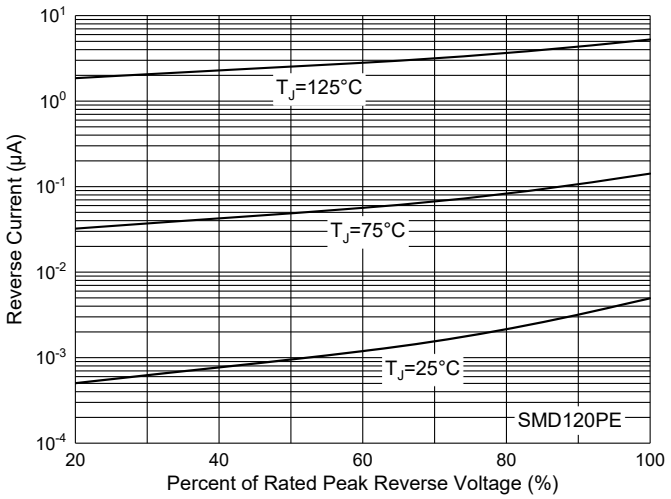


Fig. 6 - Typical Reverse Leakage Characteristics



Curve Characteristics

Fig. 7 - Typical Capacitance Characteristics

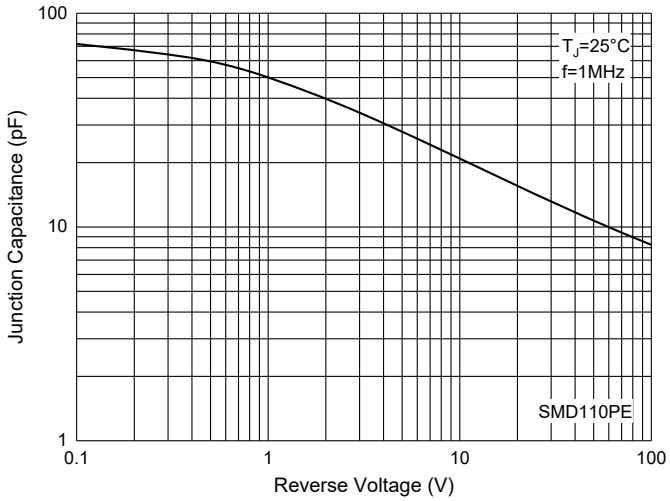
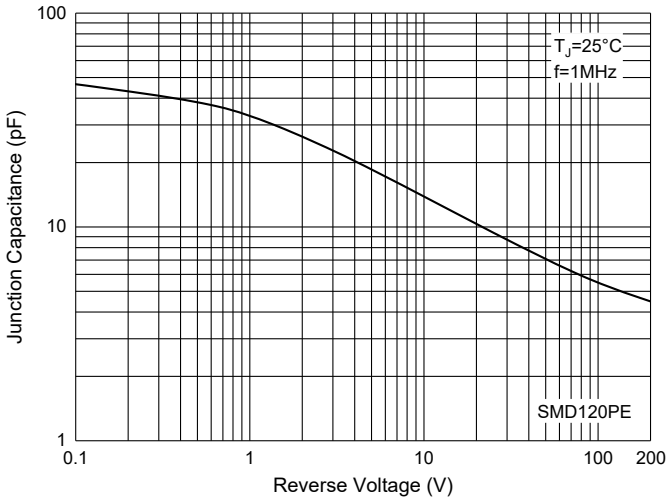


Fig. 8 - Typical Capacitance Characteristics



Ordering Information

Device	Packing
Part Number-TP	Tape&Reel:4.5Kpcs/Reel