



R12A thru R12M

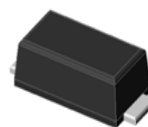
Surface Mount Glass Passivated Fast Recovery Rectifier
 Reverse Voltage 50~1000V Forward Current 1.2A

Features

- Glass passivated Fast Recovery rectifiers
- Very low profile - typical height of 1.0 mm
- Low forward voltage drop
- Low leakage current
- Moisture sensitivity: level 1, per J-STD-020
- High temperature soldering guaranteed: 260 °C/10 seconds
- Halogen-free according to IEC 61249-2-21 definition



RoHS
COMPLIANT



eSGA
(SOD-123FL)

Typical Applications

For use of general purpose rectification in lighting, cellular phone, portable device, power supplies and other consumer applications.

Maximum Ratings (TA = 25 °C unless otherwise noted)									
Parameter	Symbol	R12A	R12B	R12D	R12G	R12J	R12K	R12M	Unit
Maximum repetitive peak reverse voltage	VRRM	50	100	200	400	600	800	1000	V
Maximum RMS voltage	VRMS	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	VDC	50	100	200	400	600	800	1000	V
Maximum average forward rectified current	IF(AV)	1.2							A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	IFSM	50							A
Operating junction and storage temperature range	TJ, TSTG	- 55 to + 150							°C

Electrical Characteristics (TA = 25 °C unless otherwise noted)										
Parameter	Test Conditions	Symbol	R12A	R12B	R12D	R12G	R12J	R12K	R12M	Unit
Maximum instantaneous forward voltage	1 .2A	V _F					1.3			Volts
Maximum DC reverse current at rated DC blocking voltage	TA=25°C TA=125°C	I _R					5 50			µA
Maximum reverse recovery time	I _F =0.5A, I _R =1.0A, I _{rr} =0.25A	t _{rr}					150	250	500	nS
Typical junction capacitance	4.0 V, 1 MHz	C _J					7.5			pF
Typical thermal resistance ¹⁾	junction to mount	R _{θJM}					3.3			°C/W
	junction to ambient	R _{θJA}					67			
	junction to case	R _{θJC}					25			

Note1): Mounted on PCB with 5.0x5.0mm copper pads, 2 OZ, FR4 PCB;



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Ratings and Characteristics Curves

(TA = 25°C unless otherwise noted)

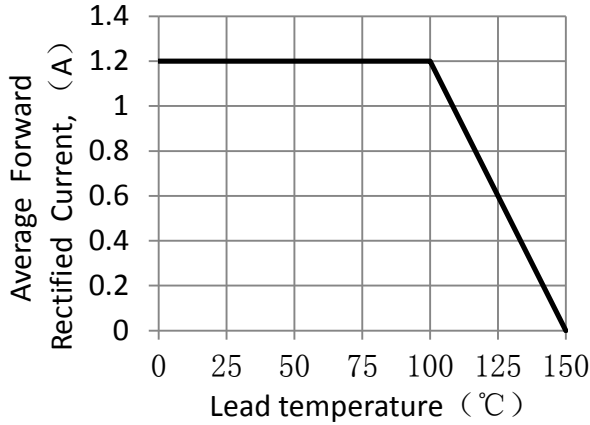


Figure 1. Forward Current Derating Curve

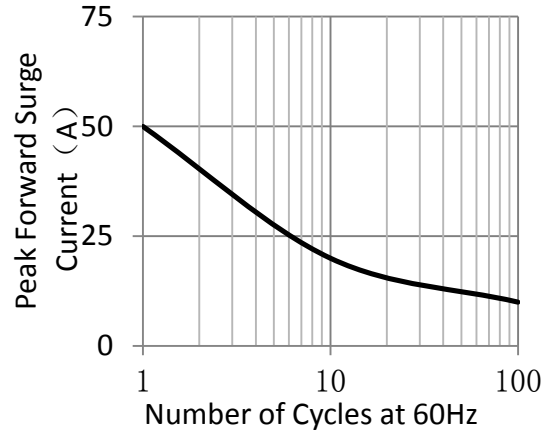


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

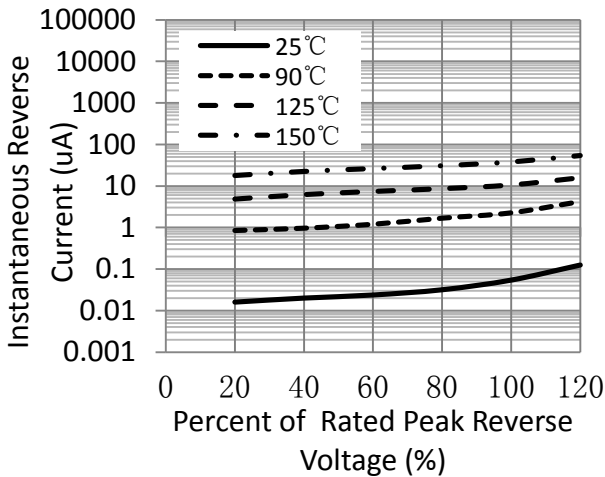


Figure 3. Typical Reverse Characteristics

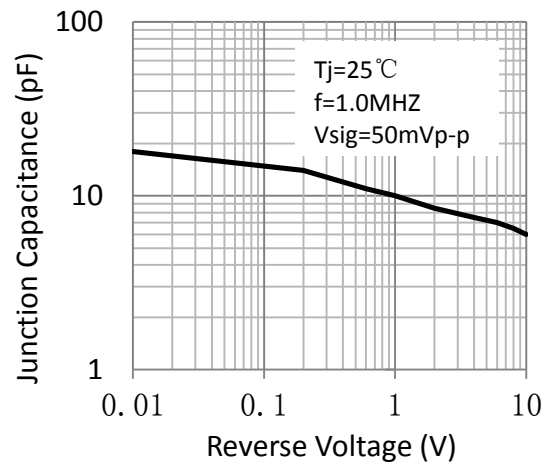


Figure 4. Typical Junction Capacitance

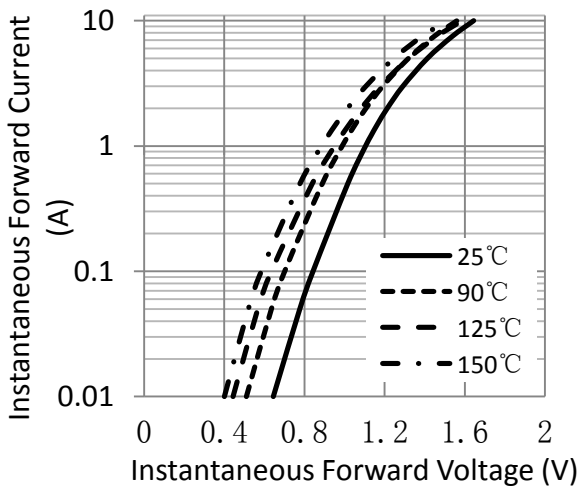
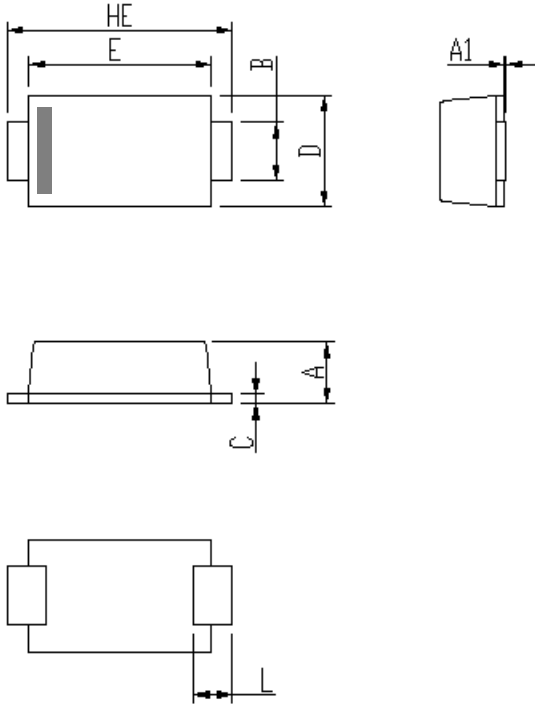


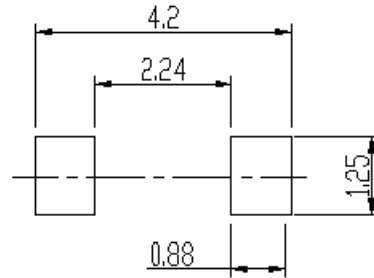
Figure 5. Typical Instantaneous Forward Characteristics

Package Outline Dimensions



DIM	Unit: mm		Unit: inch	
	MIN	MAX	MIN	MAX
A	0.9	1.08	0.035	0.043
A1	0	0.1	0.000	0.004
B	0.85	1.05	0.033	0.041
C	0.1	0.25	0.004	0.010
D	1.7	2	0.067	0.079
E	2.9	3.1	0.114	0.122
L	0.43	0.83	0.017	0.033
HE	3.5	3.9	0.138	0.154

Soldering footprint

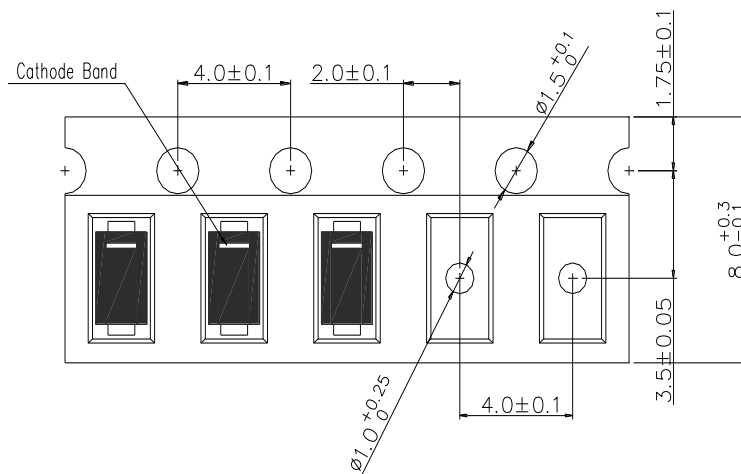


Packing Information

Packing quantities:

3000 pcs/Reel, 40 Reels/Box; 8mm Tape, 7" Reel

Tape & Reel Specification





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