

Surface Mount Glass Passivated Fast Recovery Rectifier Reverse Voltage 50~1000V Forward Current 1A

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
- AEC-Q101 qualified
- High temperature soldering guaranteed: 260 °C/10 seconds
- Halogen-free according to IEC 61249-2-21 definition





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	RS1001 FL	RS1002 FL	RS1003 FL	RS1004 FL	RS1006 FL	RS1008 FL	RS1010 FL	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)	1.0							Α	
Peak forward surge current 8.3 ms single half sine- wave superimposed on rated load	IFSM	30							Α	
Operating junction and storage temperature range	TJ, TSTG	- 55 to + 150							°C	

Electrical Characteristics (TA = 25 °C unless otherwise noted)										
Parameter	Test Conditions	Symbol	RS1001 FL	RS1002 FL	RS1003 FL	RS1004 FL	RS1006 FL	RS1008 FL	RS1010 FL	Unit
Maximum instantaneous forward voltage	1 A	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	CJ	8.2							pF
Typical thermal resistance ¹⁾	juntion to ambient	$R_{\theta JA}$	76							°C/W
	juntion to case	$R_{\theta JC}$	42							
	juntion to mount	$R_{\theta JM}$	7							

Note:1), The thermal resistance from junction to ambient, case or mount, mounted on P.C.B with 5x5mm copper pads, 2 OZ, FR4 PCB



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Ratings and Characteristics Curves

 $(TA = 25^{\circ}C \text{ unless otherwise noted})$

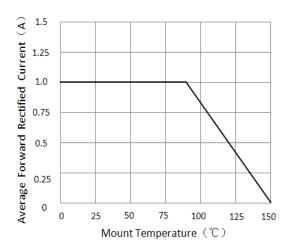


Figure 1. Forward Current Derating Curve

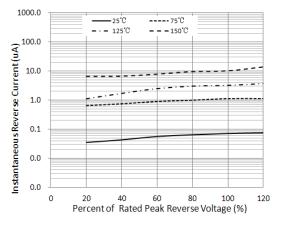


Figure 3. Typical Reverse Characteristics

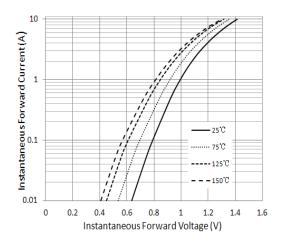


Figure 5. Typical Instantaneous Forward Characteristics

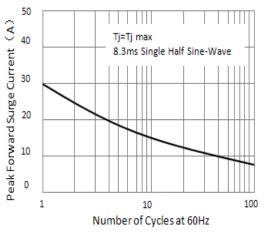


Figure 2.Maximum Non-Repetitive Peak Forward Surge Current

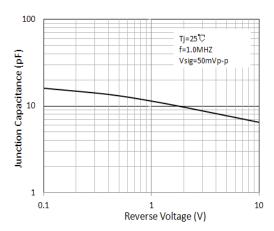
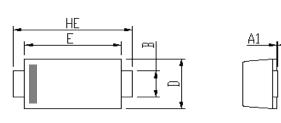


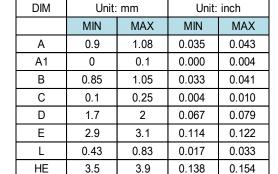
Figure 4. Typical Junction Capacitance

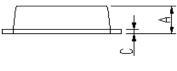


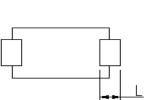
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Package Outline Dimensions

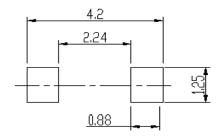








Soldering footprint

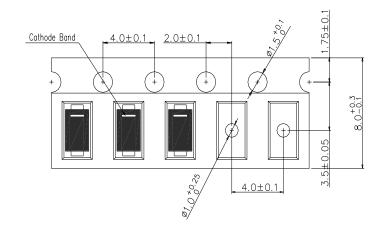


Packing Information

Packing quantities:

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

Tape & Reel Specification





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