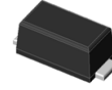


Features

- Low forward voltage drop
- Low leakage current
- Glass passivated Standard Rectifiers
- Low profile - typical height of 1.0 mm
- 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



eSGP(SOD-323F)

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	SGP1A	SGP2A	SGP3A	SGP4A	SGP5A	SGP6A	SGP7A	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 at TL(See Fig.1)	IF(AV)	1.0							A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	IFSM	25							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	SGP1A	SGP2A	SGP3A	SGP4A	SGP5A	SGP6A	SGP7A	Unit
Maximum instantaneous forward voltage	1 A	V _F	1.1							Volts
Maximum DC reverse current	TA=25°C TA=125°C	I _R	5 50							μA
Typical reverse recovery time	I _F =0.5A, I _R =1.0A, I _{rr} =0.25A	t _{rr}	1.8							μs
Typical junction capacitance	4.0 V, 1 MHz	C _J	5							pF
Typical thermal resistance ¹⁾	junction to mount	R _{θJM}	55							°C/W

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

Ratings and Characteristics Curves (TA = 25°C unless otherwise noted)

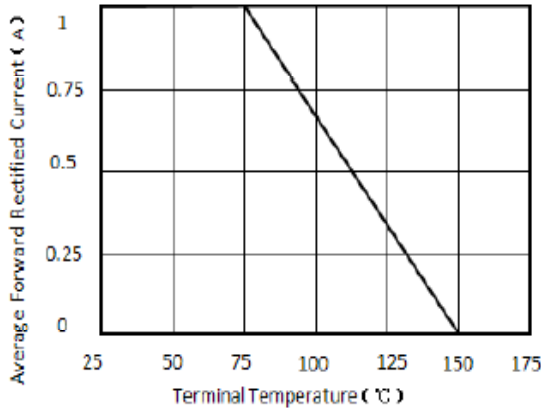


Figure 1. Forward Current Derating Curve

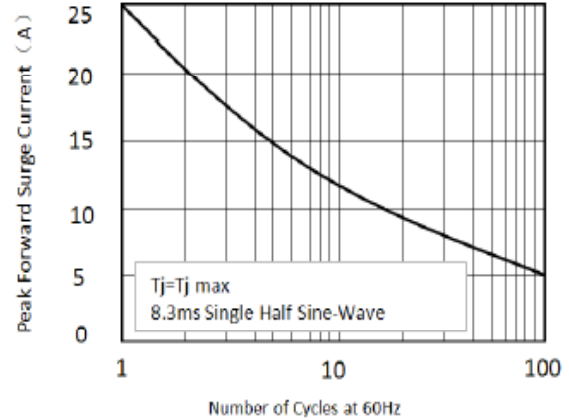


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

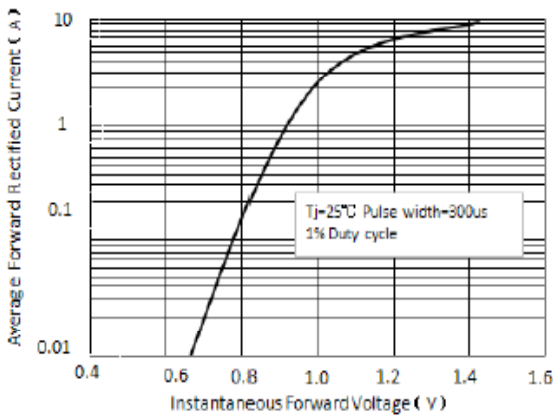


Figure 3. Typical Instantaneous Forward Characteristics

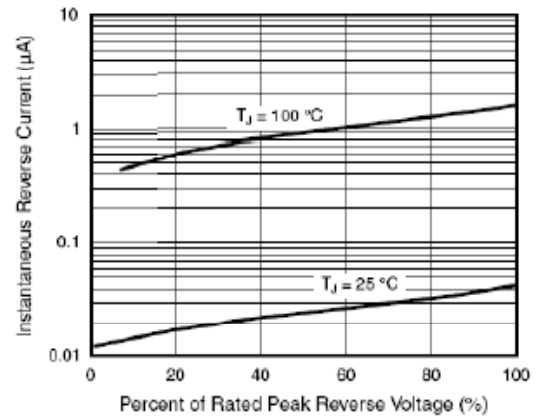


Figure 4. Typical Reverse Characteristics

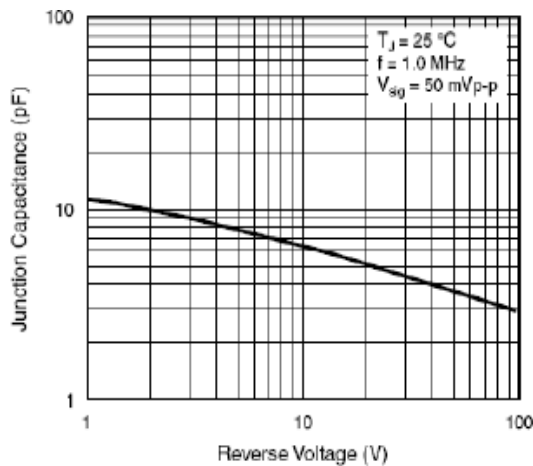


Figure 5. Typical Junction Capacitance

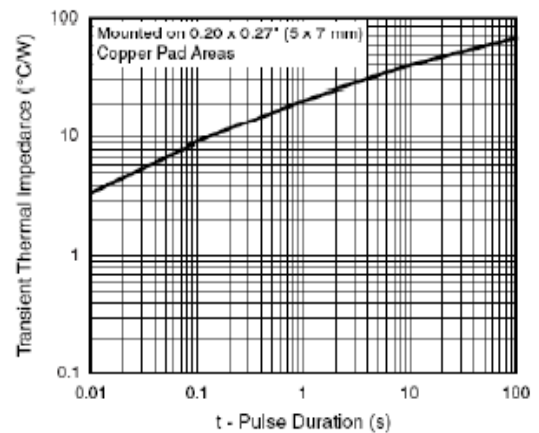
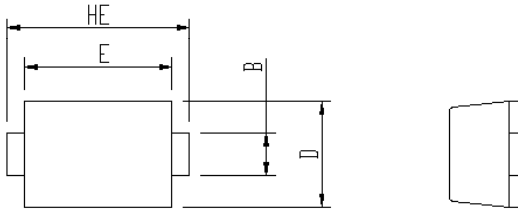
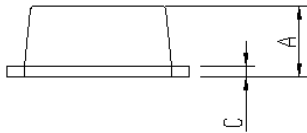


Figure 6. Typical Transient Thermal Impedance

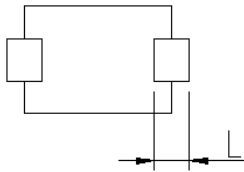
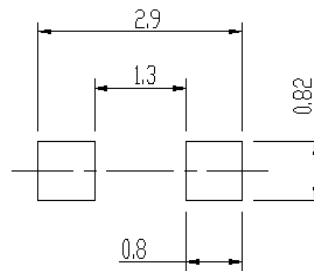
Package Outline Dimensions



Package	Unit:mm		Unit:inch	
	MIN	MAX	MIN	MAX
eSGP				
A	0.9	1.08	0.035	0.043
B	0.5	0.7	0.020	0.028
C	0.1	0.25	0.004	0.010
D	1.4	1.6	0.055	0.063
E	2.0	2.2	0.079	0.087
L	0.35	0.65	0.014	0.026
HE	2.4	2.8	0.094	0.110



Soldering footprint

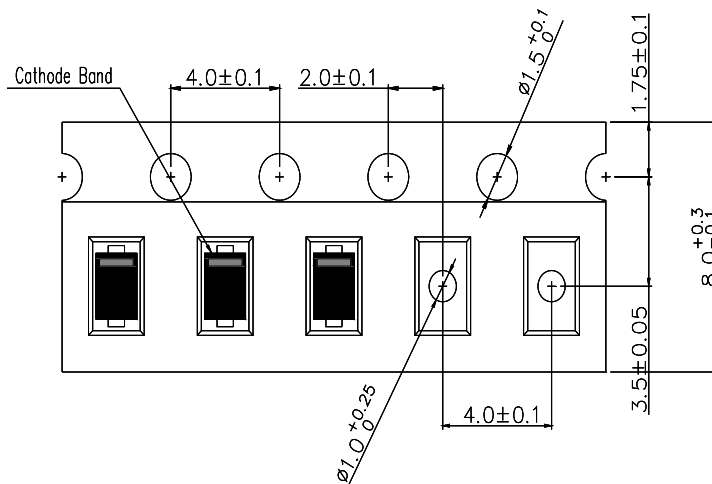


Packing Information

Packing quantities:

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

Tape & Reel Specification





SGP1A thru SGP7A

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

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