

Features

- AEC-Q101 qualified
- Low forward voltage drop
- Low leakage current
- Glass passivated Standard Rectifiers
- Low profile - typical height of 0.65 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



iSGP
(SOD-323HE)



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	ATP1A	ATP2A	ATP3A	ATP4A	ATP5A	ATP6A	ATP7A	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							A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	IFSM	20							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	ATP1A	ATP2A	ATP3A	ATP4A	ATP5A	ATP6A	ATP7A	Unit
Maximum instantaneous forward voltage	1 A	V _F	1.1							Volts
Maximum DC reverse current	TA=25°C	I _R	5							µA
	TA=125°C		50							
Typical reverse recovery time	I _F =0.5A, I _R =1.0A, I _{rr} =0.25A	t _{rr}	1							uS
Typical junction capacitance	4.0 V, 1 MHz	C _J	4.8					3.7		pF
Typical thermal resistance ¹⁾	unction to ambient	R _{θJA}	84							°C/W
	unction to lead	R _{θJL}	3							

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

Ratings and Characteristics Curves

(TA = 25°C unless otherwise noted)

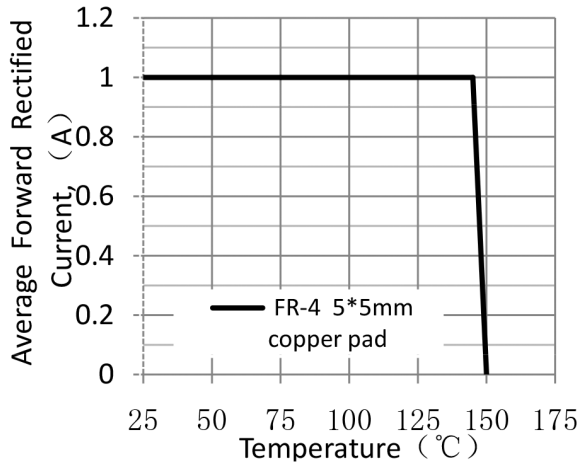


Figure 1. Forward Current Derating Curve

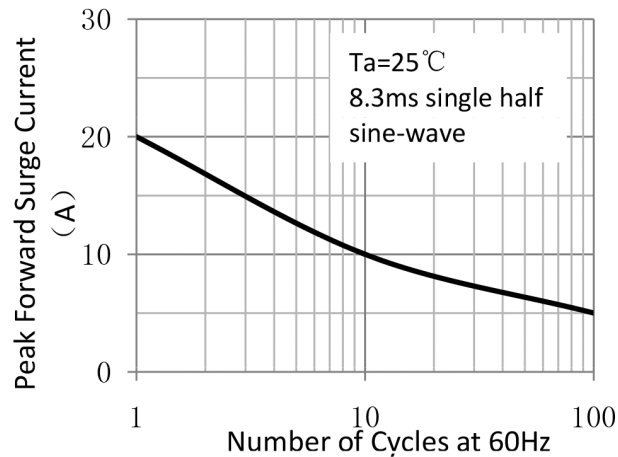


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

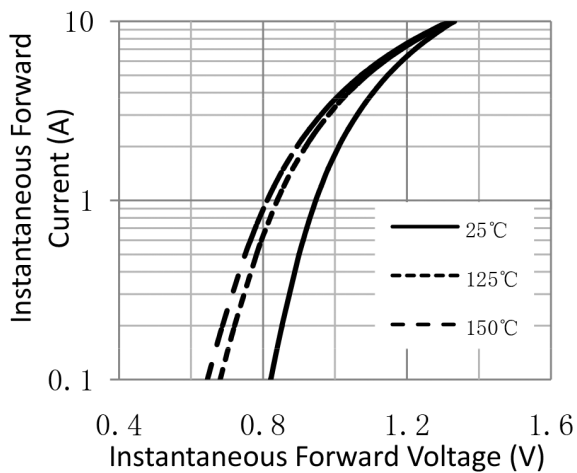


Figure 3. Typical Instantaneous Forward Characteristics

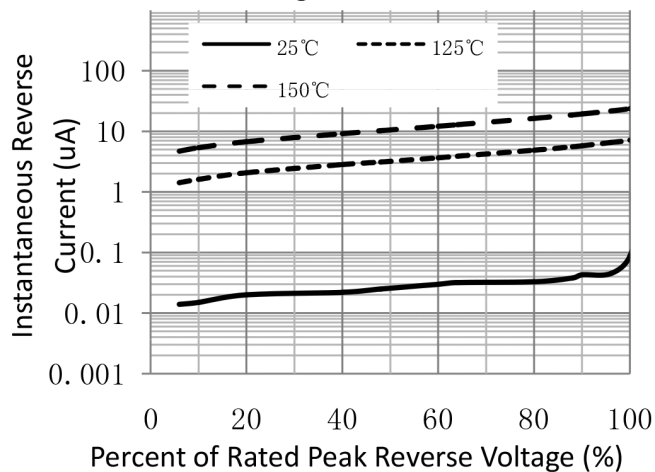


Figure 4. Typical Reverse Characteristics

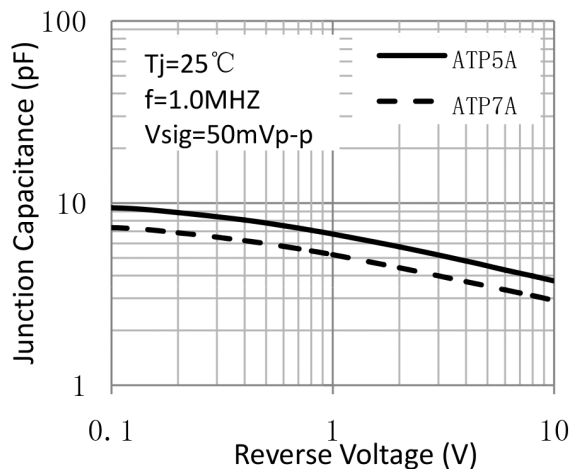
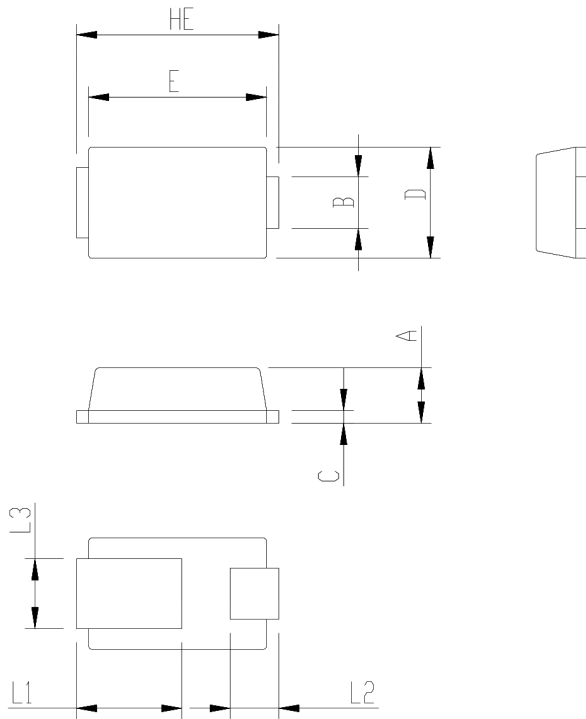


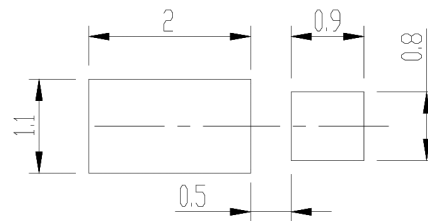
Figure 5. Typical Junction Capacitance

Package Outline Dimensions



Package	Unit:mm	
iSGP	MIN	MAX
A	0.60	0.73
B	0.55	0.75
C	0.10	0.25
D	1.20	1.40
E	2.10	2.30
HE	2.30	2.70
L1	1.10	1.50
L2	0.40	0.75
L3	0.75	1.00

soldering footprint



Packing Information

Packing Quantities:

15000 pcs/Reel, 18 Reels/Box; 8mm Tape, 13" Reel

Tape Specification