



PF1 thru PF7

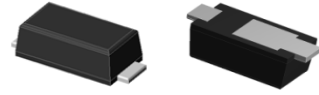
Surface Mount Glass Passivated Fast Recovery Rectifier
Reverse Voltage 50~1000V Forward Current 1A

Features

- Glass passivated fast recovery rectifiers
- Heatsink structure
- Low profile, typical thickness 0.8mm
- Low forward voltage drop
- Low leakage current
- Moisture sensitivity: level 1, per J-STD-020
- Solder dip 260 °C, 10 s



RoHS
COMPLIANT



iSGA
(SOD-123HS)

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	PF1	PF2	PF3	PF4	PF5	PF6	PF7	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	30							A
Rating for fusing(t<8.3ms)	I ² t	3.8							A ² sec
Operating junction and storage temperature range	TJ, TSTG	- 55 to + 150							°C

Electrical Characteristics (TA = 25 °C unless otherwise noted)										
Parameter	Test Conditions	Symbol	PF1	PF2	PF3	PF4	PF5	PF6	PF7	Unit
Minimum Breakdown voltage	Ta=25°C, IR=100uA	V _{BR}	400			600	1000			V
Maximum instantaneous forward voltage	IF=1 A, Ta=25°C	V _F	1.3							
	IF=1 A, Ta=125°C		0.98							
Maximum DC reverse current at rated DC blocking voltage	TA=25°C	I _R	5.0							µA
	TA=125°C		50							
Maximum reverse recovery time	IF=0.5A, IR=1.0A, I _{rr} =0.25A	t _{rr}	150			250			nS	
Typical junction capacitance	4.0 V, 1 MHz	C _J	7.5							pF
Typical thermal resistance	junction to ambient	R _{θJA} ¹⁾	63							°C/W
	junction to lead	R _{θJL} ¹⁾	9							
	junction to case	R _{θJC} ²⁾	39							

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

2), The thermal resistance from junction to case, mounted on P.C.B with recommended copper pads, 2 OZ, FR4 PCB



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Ratings and Characteristics Curves

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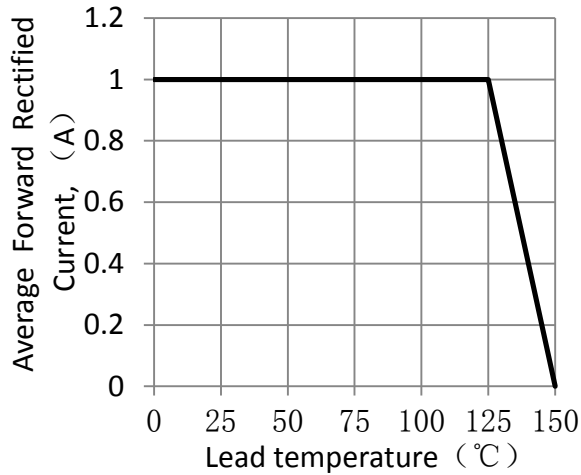


Figure 1. Forward Current Derating Curve

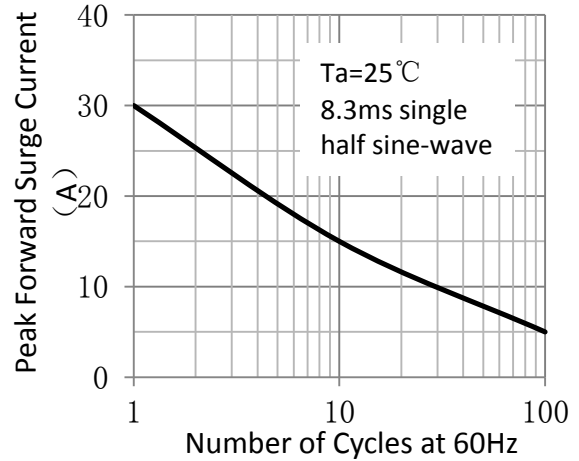


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

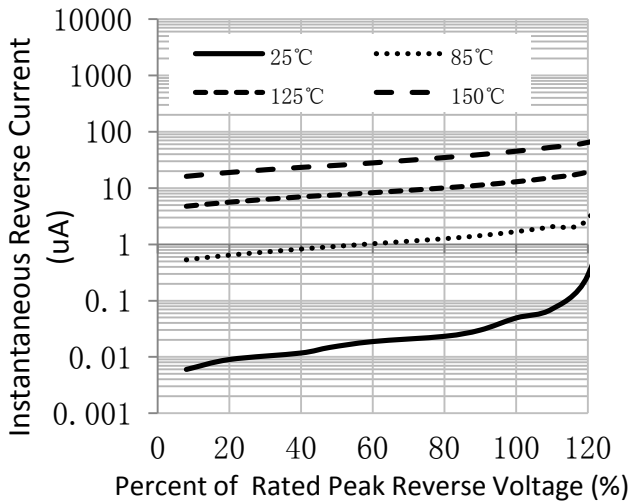


Figure 3. Typical Reverse Characteristics

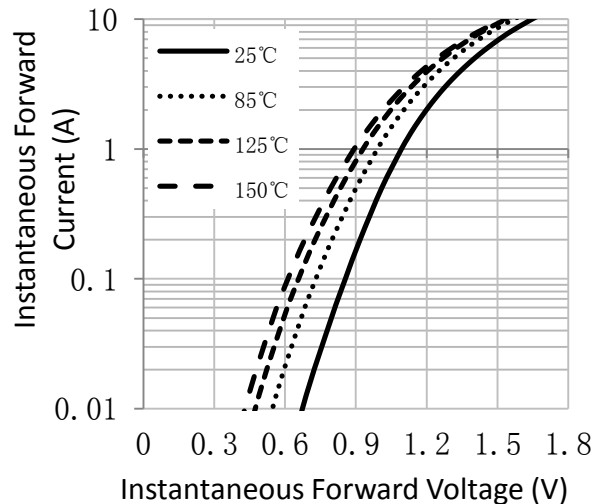


Figure 4. Typical Instantaneous Forward Characteristics

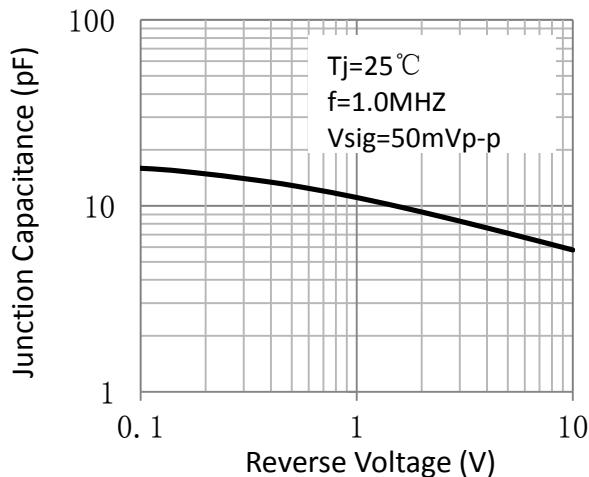
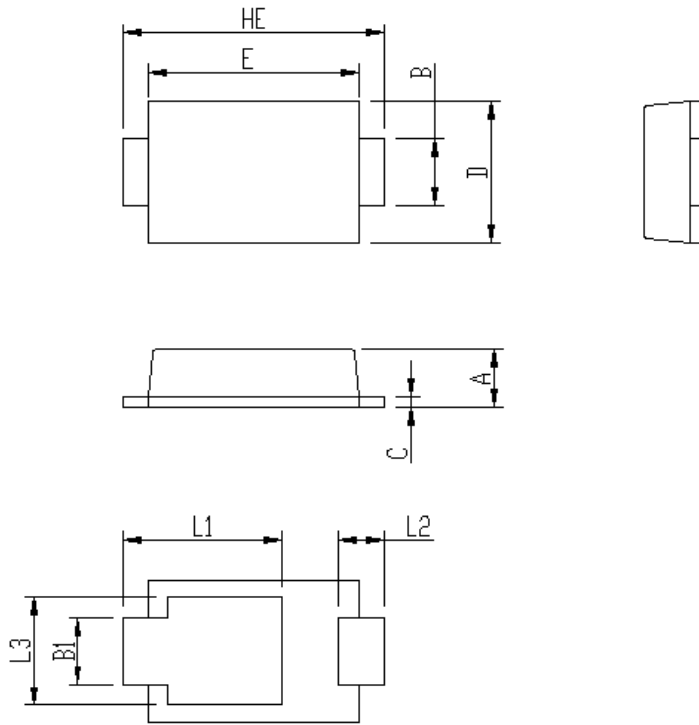


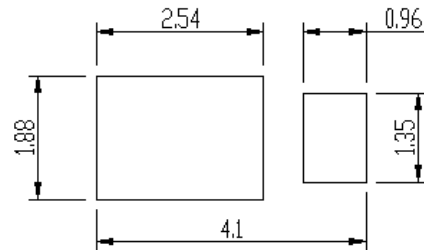
Figure 5. Typical Junction Capacitance

Package Outline Dimensions



Package	iSGA	
Unit:mm	MIN	MAX
A	0.75	0.90
B	0.85	1.05
B1	0.85	1.05
C	0.1	0.25
D	1.9	2.1
E	2.9	3.1
L1	2.0	2.45
L2	0.4	0.85
L3	1.3	1.7
HE	3.5	3.9

Soldering footprint

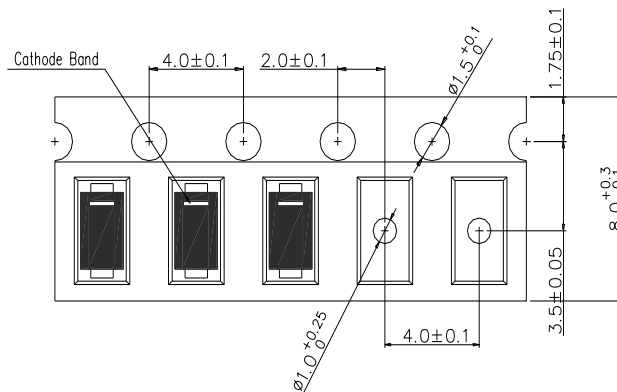


Packing Information

Packing quantities:

Reel size	Quantity/reel	Quantity/inner Box	Quantity/Carton
7"	3K	30K	120K

Packing Tape Specification





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