

Features

- Glass passivated superfast recovery Rectifiers
- Low profile, typical thickness 0.8mm
- Low forward voltage drop
- Low leakage current
- Moisture sensitivity: level 1, per J-STD-020
- Heatsink structure
- High temperature soldering guaranteed: 260 °C/10 seconds



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	PU1	PU2	PU3	PU4	PU5	Unit
Maximum repetitive peak reverse voltage	VRRM	50	100	200	400	600	V
Maximum RMS voltage	VRMS	35	70	140	280	420	V
Maximum DC blocking voltage	VDC	50	100	200	400	600	V
Maximum average forward rectified current	IF(AV)	1					A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	IFSM	30					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	PU1	PU2	PU3	PU4	PU5	Unit
Maximum instantaneous forward voltage	1 A	V _F	0.95			1.3	1.7	Volts
Maximum DC reverse current at rated DC blocking voltage	TA=25°C	I _R	5.0					µA
	TA=125°C		100					
Maximum reverse recovery time	I _F =0.5A, I _R =1.0A, I _{rr} =0.25A	t _{rr}	35					nS
Typical junction capacitance	4.0 V, 1 MHz	C _J	7					pF
Typical thermal resistance ¹⁾	junction to ambient	R _{θJA}	90					°C/W
	junction to case	R _{θJC}	25					
	junction to lead	R _{θJL}	18					

Note:1), The thermal resistance from junction to ambient, case or lead, mounted on FR-4 P.C.B

Ratings and Characteristics Curves

(TA = 25°C unless otherwise noted)

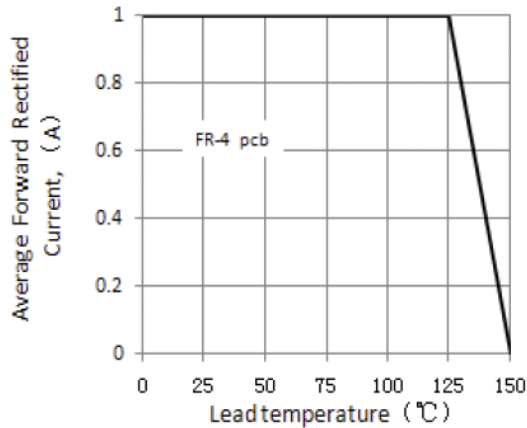


Figure 1. Forward Current Derating Curve

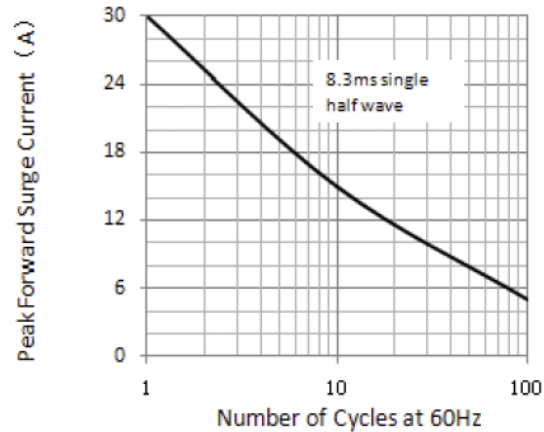


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

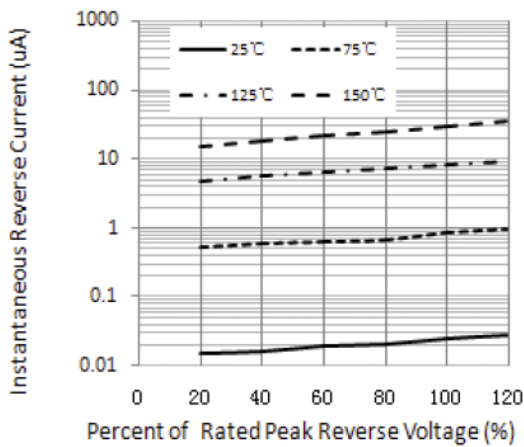


Figure 3. Typical Reverse Characteristics

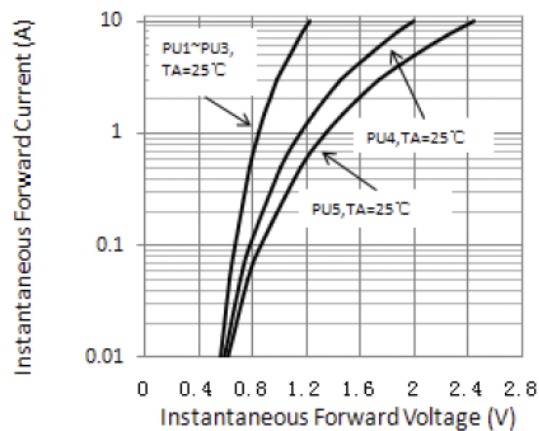


Figure 4. Typical Instantaneous Forward Characteristics

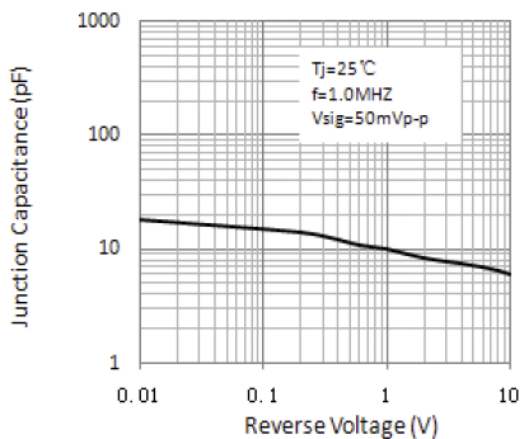


Figure 5. Typical Junction Capacitance

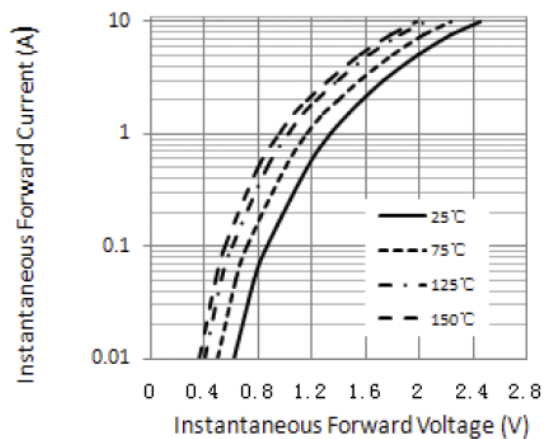
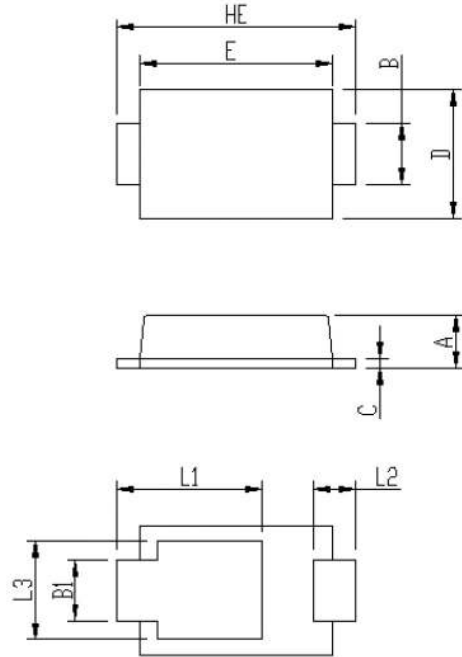


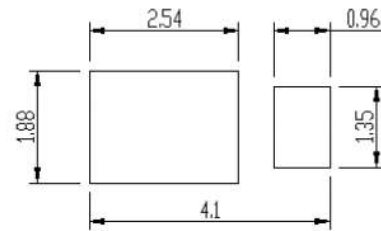
Figure 6. Typical Instantaneous Forward Characteristics (PU5)

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

Tape & Reel Specification

