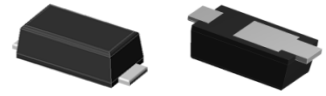


## Features

- 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



iSGA  
(SOD-123HS)



## Maximum Ratings (T<sub>A</sub> = 25 °C unless otherwise noted)

Parameter	Symbol	SPF27	Unit
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	1000	V
Maximum RMS Voltage	V <sub>RMS</sub>	700	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	1000	V
Maximum Average Forward Rectified Current	I <sub>F(AV)</sub>	2.0	A
Peak Forward Surge Current 8.3 ms Single Half Sine-Wave Superimposed on Rated Load	I <sub>FSM</sub>	60	A
Rating for Fusing(t<8.3ms)	I <sup>2</sup> t	15.0	A <sup>2</sup> sec
Operating Junction and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	- 55 to + 150	°C

## Electrical Characteristics (T<sub>A</sub> = 25°C unless otherwise noted)

Parameter	Test Conditions	Symbol	SPF27	Unit
Minimum Breakdown Voltage	T <sub>A</sub> =25°C, I <sub>R</sub> =100uA	V <sub>BR</sub>	1000	V
Maximum Instantaneous forward voltage	I <sub>F</sub> =2 A, T <sub>A</sub> =25°C	V <sub>F</sub>	1.3	
Maximum DC Reverse Current at Rated DC Blocking Voltage	T <sub>A</sub> =25°C	I <sub>R</sub>	1	µA
	T <sub>A</sub> =125°C		50	
Maximum Reverse Recovery Time	I <sub>F</sub> =0.5A, I <sub>R</sub> =1.0A, I <sub>rr</sub> =0.25A	t <sub>rr</sub>	250	nS
Typical Junction Capacitance	4.0 V, 1 MHz	C <sub>J</sub>	10	pF
Typical Thermal Resistance	junction to Ambient	R <sub>θJA</sub> <sup>1)</sup>	60	°C/W
	junction to lead	R <sub>θJL</sub> <sup>1)</sup>	10	
	junction to case	R <sub>θJC</sub> <sup>2)</sup>	35	

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

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

## Ratings and Characteristics Curves

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

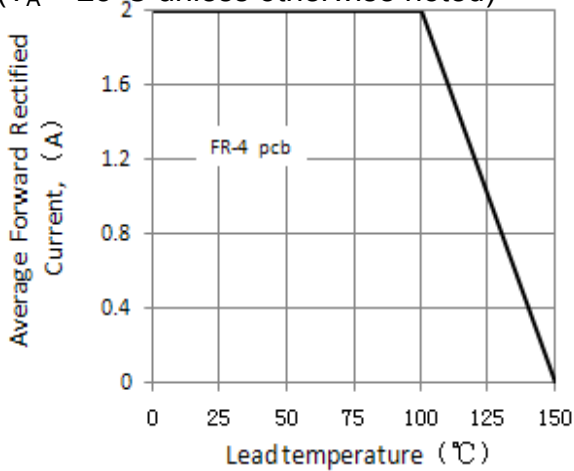


Figure 1. Forward Current Derating Curve

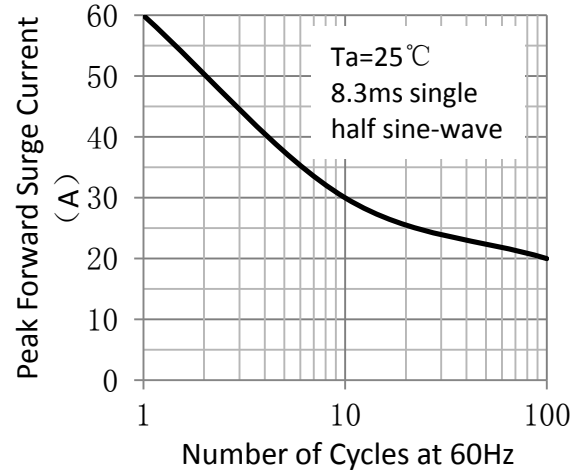


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

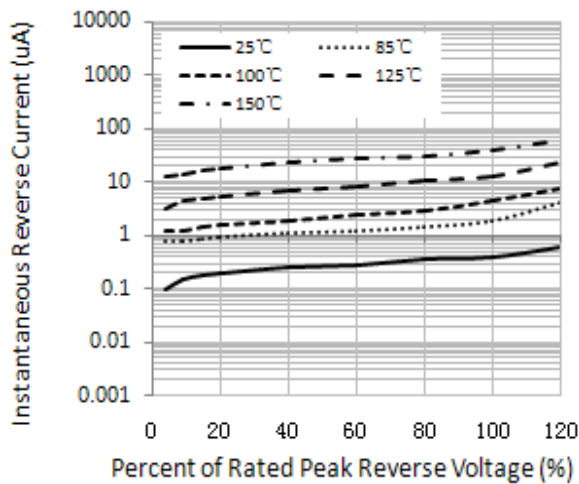


Figure 3. Typical Reverse Characteristics

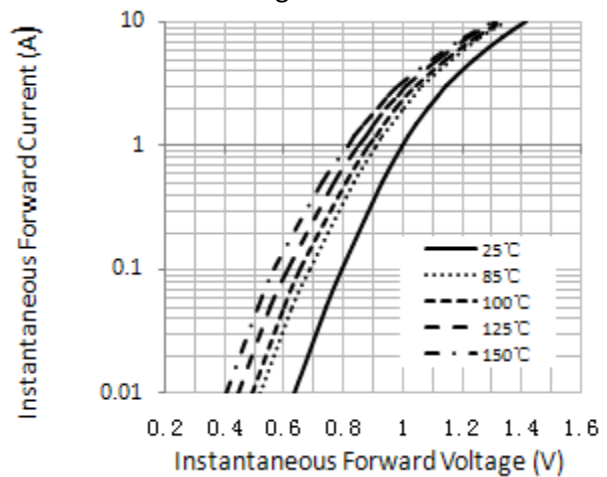


Figure 4. Typical Instantaneous Forward Characteristics

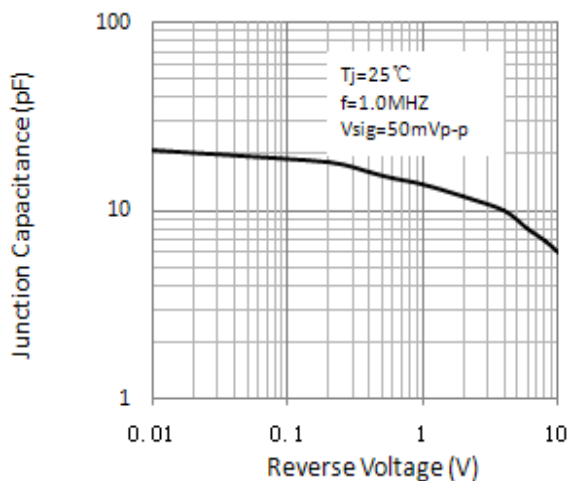
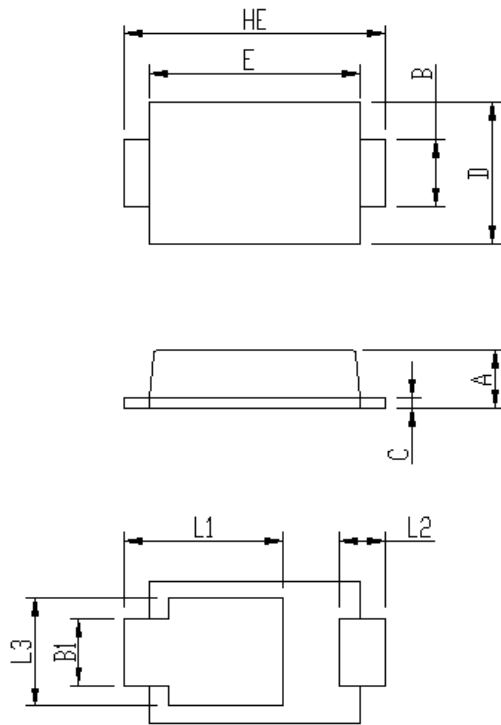


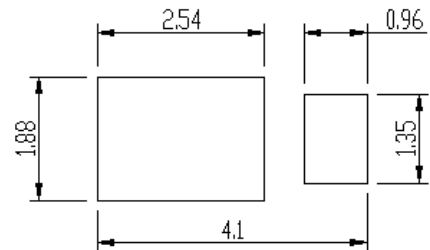
Figure 5. Typical Junction Capacitance

## 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

