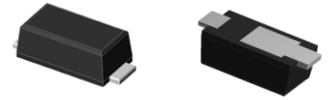


GSP151A thru GS P157A

Surface Mount Glass Passivated Standard Rectifier
 Reverse Voltage 50-1000V Forward Current 1.5A

Features

- Glass passivated standard 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



iSGA
(SOD-123HS)



RoHS
COMPLIANT

Absolute Maximum Ratings $T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	GS P151A	GS P152A	GS P153A	GS P154A	GS P155A	GS P156A	GS P157A	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	1.5							A
Peak Forward Surge Current (8.3 ms single half sine-wave superimposed on rated load)	I_{FSM}	55							A
Rating for Fusing ($t < 8.3\text{ms}$)	I^2t	13							A^2sec
Operating Junction and Storage Temperature Range	T_J, T_{STG}	- 55 to + 150							$^\circ\text{C}$

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

Parameter	Test Conditions	Symbol	GS P151A	GS P152A	GS P153A	GS P154A	GS P155A	GS P156A	GS P157A	Unit
Minimum Breakdown Voltage	$I_R=100\mu\text{A}$	V_{BR}	400			600	1000			V
Maximum Instantaneous Forward Voltage	$I_F=1.5\text{ A}, T_A=25^\circ\text{C}$	V_F	1.0							
	$I_F=1.5\text{ A}, T_A=125^\circ\text{C}$		0.88							
Maximum DC Reverse Current at Rated DC Blocking Voltage	$T_A=25^\circ\text{C}$	I_R	5							μA
	$T_A=125^\circ\text{C}$		50							
Typical Reverse Recovery Time	$I_F=0.5\text{A}, I_R=1.0\text{A}, I_{rr}=0.25\text{A}$	t_{rr}	1.5							μs
Typical Junction Capacitance	4.0 V, 1 MHz	C_J	10							pF
Typical Thermal Resistance	Junction to Ambient ¹⁾	$R_{\theta JA}$	63							$^\circ\text{C/W}$
	Junction to Lead ¹⁾	$R_{\theta JL}$	9							
	Junction to Case ²⁾	$R_{\theta JC}$	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

Typical Electrical Characteristic Curves

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

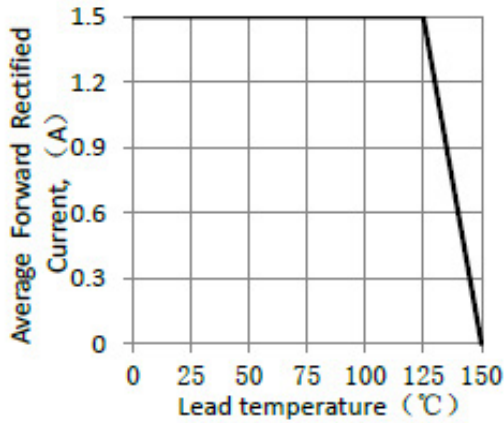


Figure 1. Forward Current Derating Curve

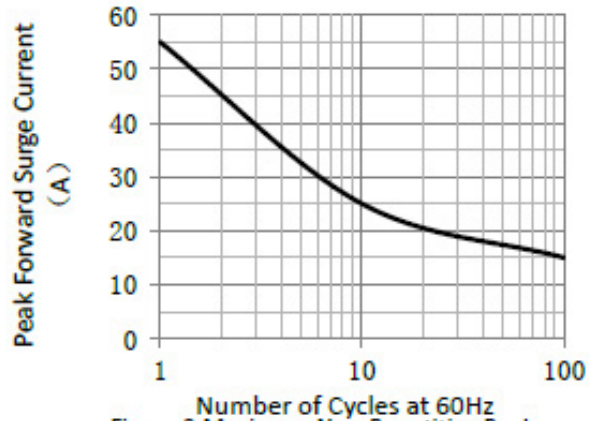


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

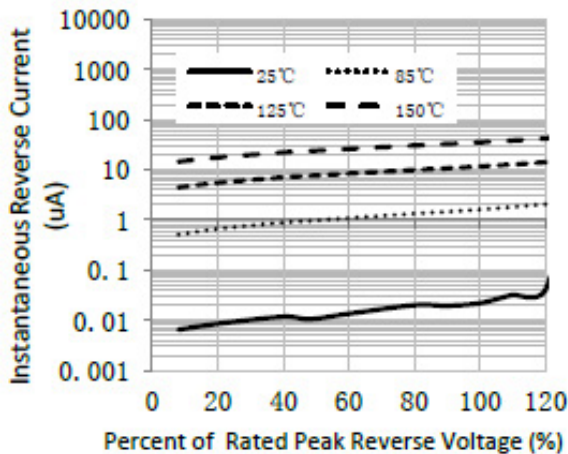


Figure 3. Typical Reverse Characteristics

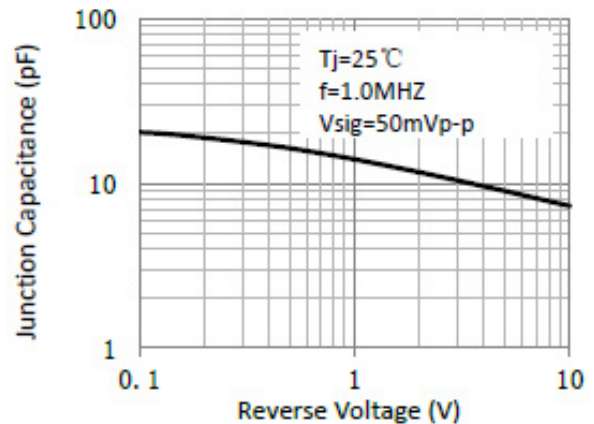


Figure 4. Typical Junction Capacitance

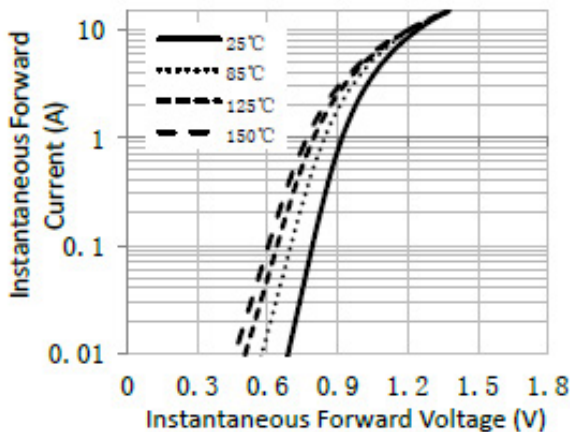
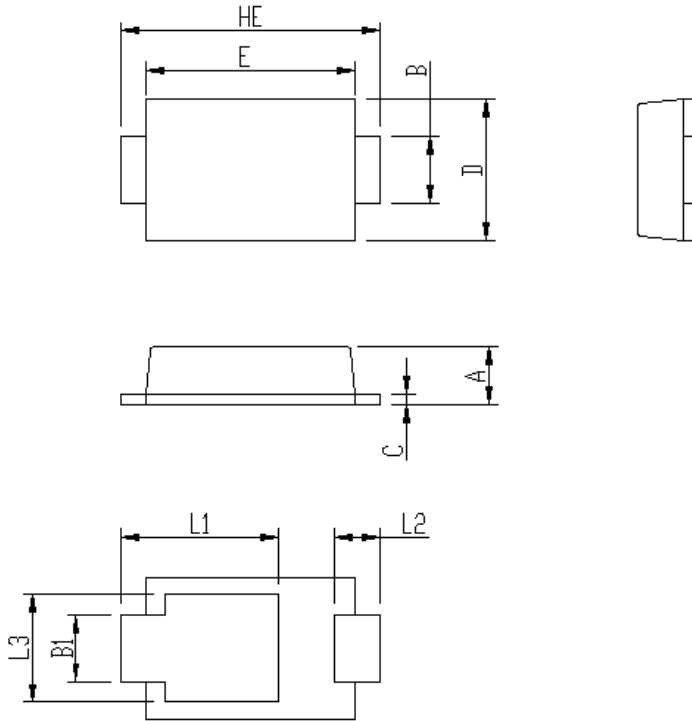


Figure 5. Typical Instantaneous Forward Characteristics

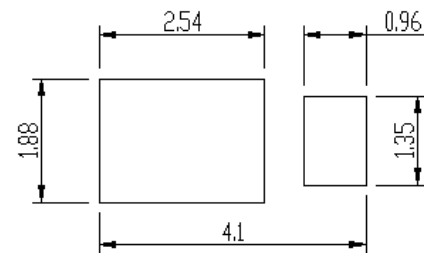
Package Outline Dimensions



iSGA (SOD-123HS)

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

