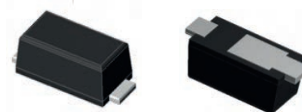


GSPS22 thru GSPS24

Surface Mount Schottky Rectifier
Reverse Voltage 20V-40V Forward Current 2A

Features

- Low leakage current
- Schottky barrier diodes
- Low forward voltage drop
- Halogen-free according to IEC 61249-2-21 definition
- Moisture sensitivity: level 1, per J-STD-020
- High temperature soldering guaranteed: 260°C/10 seconds



Package: iSGA
(SOD-123HS)



RoHS
COMPLIANT

Applications

For use in low voltage, high frequency inverters, free-wheeling and polarity protection application.

Maximum Ratings (T_A=25°C unless otherwise noted)

Parameter	Symbol	GSPS22	GSPS23	GSPS24	Unit
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	20	30	40	V
Maximum RMS Voltage	V _{RMS}	14	21	28	V
Maximum DC Blocking Voltage	V _{DC}	20	30	40	V
Maximum Average Forward Rectified Current	I _{F(AV)}	2			A
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Superimposed on Rated Load Per Diode	I _{FSM}	50			A
Thermal Resistance, Junction to Ambient	R _{θJA}	60			°C/W
Thermal Resistance, Junction to Case	R _{θJC}	28			°C/W
Thermal Resistance, Junction to Lead	R _{θJL}	6			°C/W
Operating Junction Temperature Range	T _J	-55 to +150			°C
Storage Temperature Range	T _{STG}	-55 to +150			°C

Note:

1. The thermal resistance from junction to ambient or lead, mounted on copper pad area of 5.0 x 5.0mm to each terminal.
2. The thermal resistance from junction to case, mounted on recommended copper pad to each terminal.

Electrical Characteristics (T_A=25°C unless otherwise noted)

Parameter	Symbol	Test Conditions	GSPS22	GSPS23	GSPS24	Unit
Forward Drop Voltage	V _F	I _F =2A, T _A =25°C	0.55			V
		I _F =2A, T _A =125°C	0.50			
Reverse Leakage Current @ V _R	I _R	T _J =25°C	50			uA
		T _J =125°C	10			mA
Typical Junction Capacitance	C _J	4.0V, 1MHZ	115			pF

GSPS22 thru GSPS24

Surface Mount Schottky Rectifier
Reverse Voltage 20V-40V Forward Current 2A

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

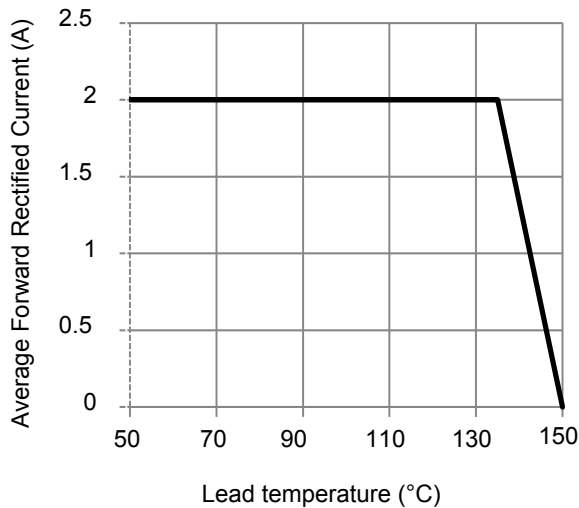


Figure 1. Forward Current Derating Curve

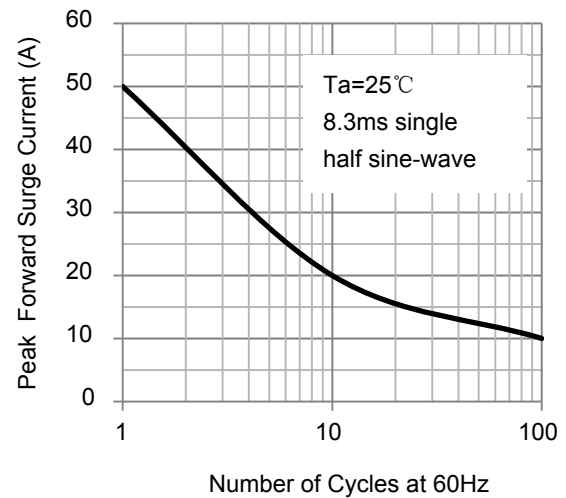


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

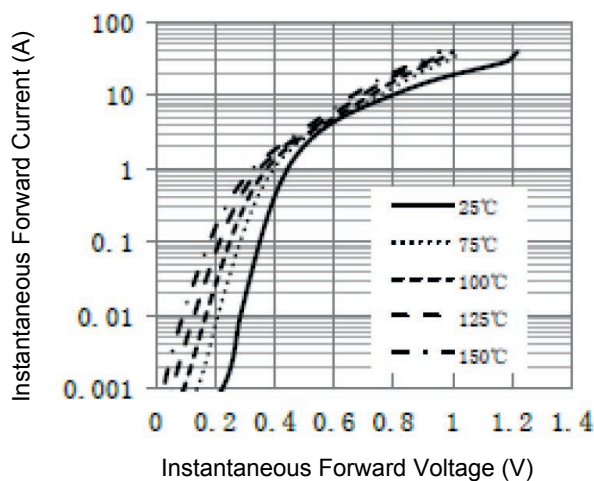


Figure 3. Typical Instantaneous Forward Characteristics

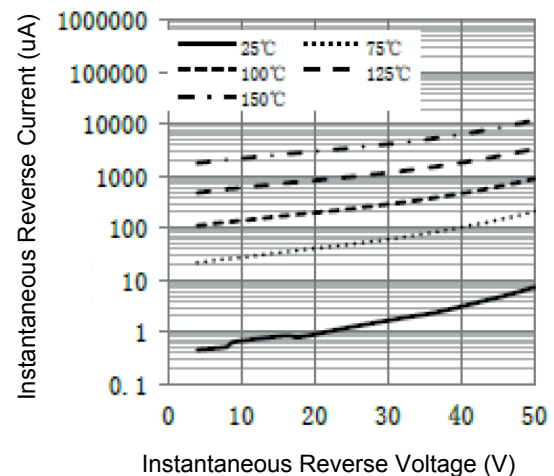


Figure 4. Typical Reverse Characteristics

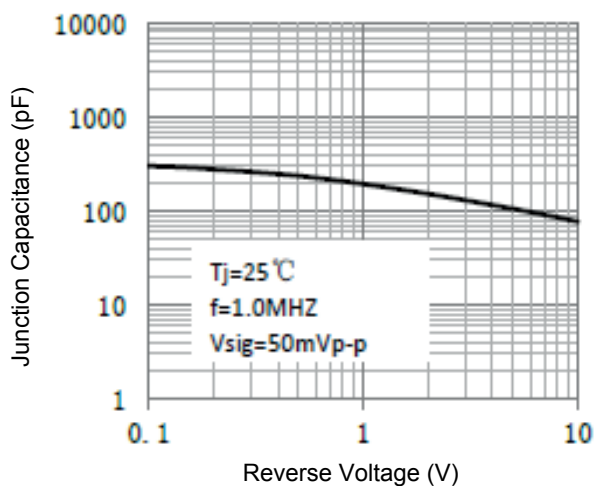
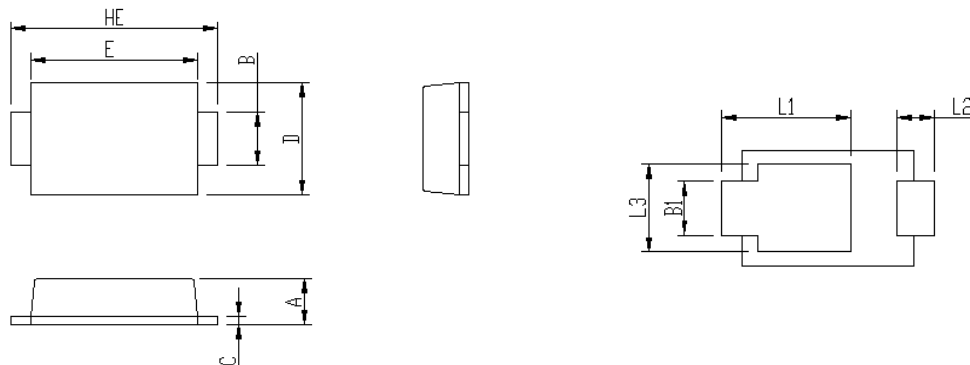


Figure 5. Typical Junction Capacitance

GPS22 thru GPS24

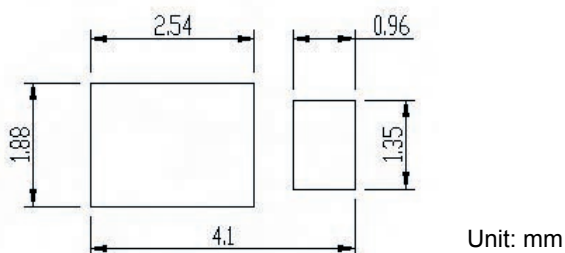
Surface Mount Schottky Rectifier
Reverse Voltage 20V-40V Forward Current 2A

Package Outline Dimensions iSGA (SOD-123HS)



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.750	0.900	0.030	0.035
B	0.850	1.050	0.033	0.041
B1	0.850	1.050	0.033	0.041
C	0.100	0.250	0.004	0.010
D	1.900	2.100	0.075	0.083
E	2.900	3.100	0.114	0.122
L1	2.000	2.450	0.079	0.096
L2	0.400	0.850	0.016	0.033
L3	1.300	1.700	0.051	0.067
HE	3.500	3.900	0.138	0.154

Recommended Pad Layout



Unit: mm

Order Information

Device	Package	Marking	Carrier	Quantity
GPS22	iSGA (SOD-123HS)	PS22	Tape & Reel	3,000pcs / Reel
GPS23	iSGA (SOD-123HS)	PS23	Tape & Reel	3,000pcs / Reel
GPS24	iSGA (SOD-123HS)	PS24	Tape & Reel	3,000pcs / Reel