GOOD-ARK SEMICONDUCTOR

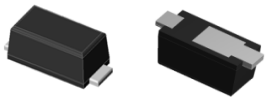
GSPSL14

Surface Mount Schottky Rectifier
Reverse Voltage 40V Forward Current 1A

Features

- Heatsink structure
- Low profile, typical thickness 0.8mm
- Low leakage current
- Super Low VF Schottky barrier diodes
- Moisture sensitivity: level 1, per J-STD-020
- High temperature soldering guaranteed: 260°C/10 seconds

RoHS COMPLIANT



Package: iSGA

(SOD-123HS)

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

Parameter	Symbol	PSL14	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	40	V
Maximum RMS voltage	V_{RMS}	28	V
Maximum DC blocking voltage	V_{DC}	40	V
Maximum average forward rectified current	$I_{F(AV)}$	1.0	A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	I_{FSM}	40	A
Rating for fusing(t＜8.3ms)	I^2t	6.7	A^2sec
Operating junction temperature range	T_J	-55 to +150	°C
Storage temperature range	T_{STG}	- 55 to + 150	°C

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

Parameter	Test Conditions	Symbol	Typ.	Max	Unit
Minimum breakdown voltage	Ta=25℃,IR=1mA	V_{BR}	40		Volts
Instantaneous forward voltage	1A ,Ta=25℃	V_F	0.42	0.45	Volts
	1A ,Ta=125℃		0.34	0.40	Volts
Reverse current at rated DC blocking voltage	Ta=25℃	I_R	22.0	200.0	uA
	Ta=125℃		10.00	20	mA
Typical junction capacitance	4.0 V, 1 MHz	C_J	55		pF
Typical thermal resistance	juntion to ambient	$R_{\theta JA}$ 1)	65		℃/W
	juntion to lead	$R_{\theta JL}$ 1)	9		℃/W
	juntion to case	$R_{\theta JC}$ 2)	35		℃/W

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

Typical Electrical Characteristic Curves

(T_A = 25℃ unless otherwise noted)

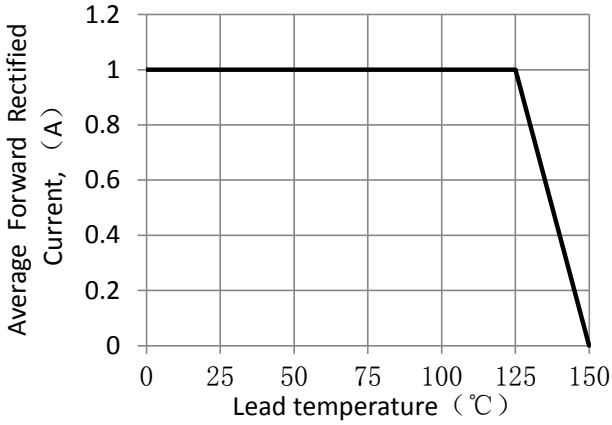


Figure 1.Forward Current Derating Curve

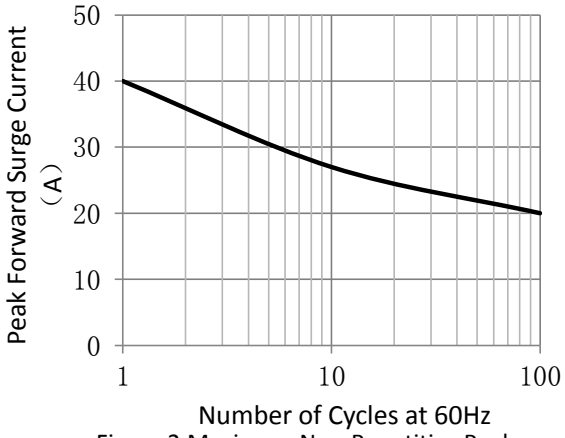


Figure 2.Maximum Non-Repetitive Peak Forward Surge Current

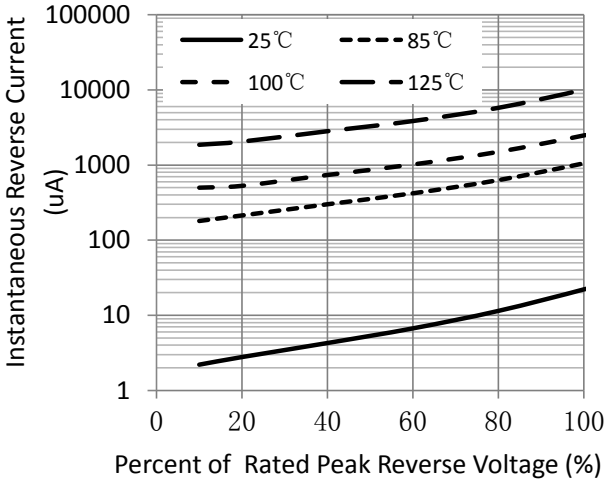


Figure 3. Typical Reverse Characteristics

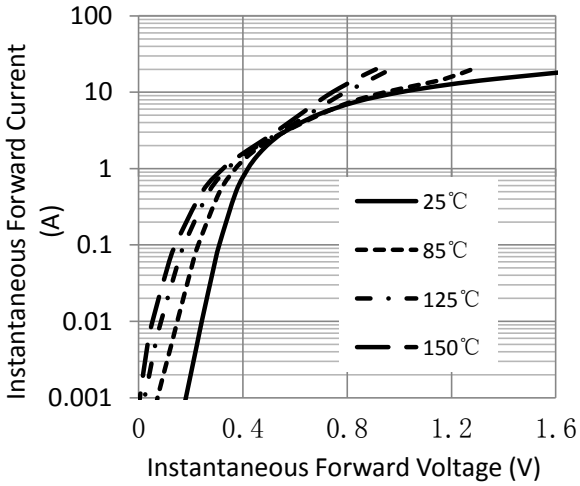


Figure 4. Typical Instantaneous Forward Characteristics

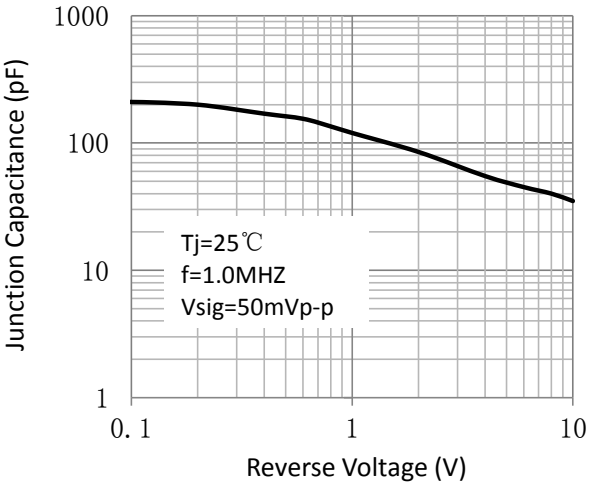


Figure 5. Typical Junction Capacitance

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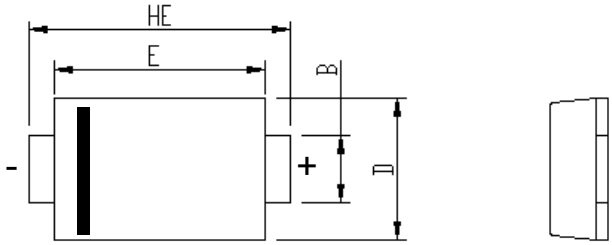
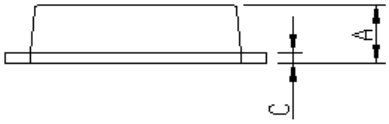
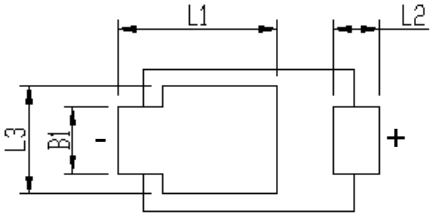
Package Outline Dimensions



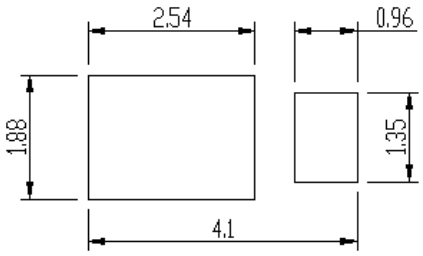
Cathode Band





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