

Surface Mount Schottky Rectifier Reverse Voltage 50~60V Forward Current 1.0A

Features

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



iSGA (SOD-123HS)

Typical Applications

For use of fast swiching in RF module, lighting, cellular phone, portable device, power supplies and other consumer applications.

Maximum Ratings (TA = 25 °C unless otherwise noted)						
Parameter	Symbol	PS15	PS16	Unit		
Maximum repetitive peak reverse voltage	VRRM	50	60	V		
Maximum RMS voltage	VRMS	35	42	V		
Maximum DC blocking voltage	VDC	50	60	V		
Maximum average forward rectified current	IF(AV)	1.0		А		
Peak forward surge current 8.3 ms single half sinewave superimposed on rated load	IFSM	30		А		
Rating for fusing(t<8.3ms)	l ² t	3.75		A ² sec		
Operating junction temperature range	T _J	- 55 to + 150		°C		
Storage temperature range	T _{STG}	- 55 to + 150		°C		

Electrical Characteristics (TA = 25 °C unless otherwise noted)						
Parameter	Test Conditions	Symbol	Тур.	Max.	Unit	
Minimum Breakdown voltage	Ta=25°C,IR=1mA	V_{BR}	50	60		
Instantaneous forward voltage	IF=1A,Ta=25℃	V _F	0.61	0.65	Volts	
	IF=1A,Ta=125℃		0.54	0.60		
Instantaneous reverse current at rated DC blocking voltage	Ta=25°C	- I _R	6.36	50	uA	
	Ta=125°C		3.41	10.00	mA	
Typical junction capacitance	4.0 V, 1 MHz	CJ	34		pF	
Typical thermal resistance	juntion to ambient	R _{θJA} ¹⁾	65			
	juntion to lead	R _{θJL} ¹⁾	9		°C/W	
	juntion to case	R _{θJC} ²⁾	35			

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

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Ratings and Characteristics Curves

(TA = 25°C unless otherwise noted)

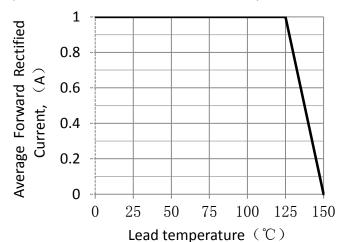


Figure 1.Forward Current Derating Curve

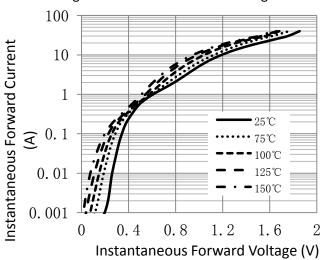


Figure 3. Typical Instantaneous Forward Characteristics

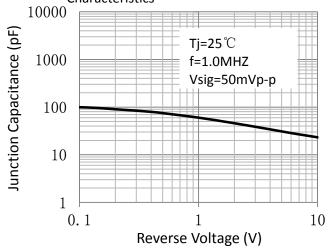


Figure 5. Typical Junction Capacitance

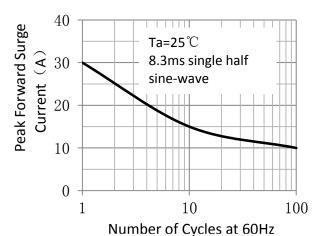


Figure 2.Maximum Non-Repetitive Peak Forward Surge Current

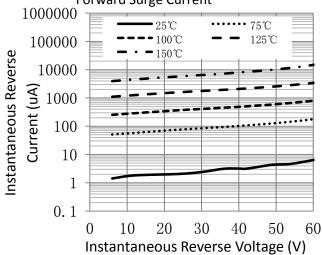
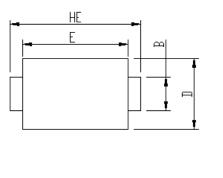


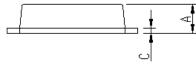
Figure 4. Typical Reverse Characteristics

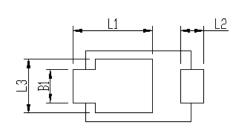
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Package Outline Dimensions



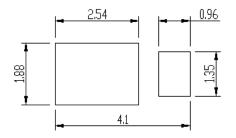






Package	iSGA		
Unit:mm	MIN	MAX	
Α	0.75	0.90	
В	0.85	1.05	
B1	0.85	1.05	
С	0.1	0.25	
D	1.9	2.1	
Е	2.9	3.1	
L1	2.0	2.45	
L2	0.4	0.85	
L3	1.3	1.7	
HE	3.5	3.9	

Soldering footprint

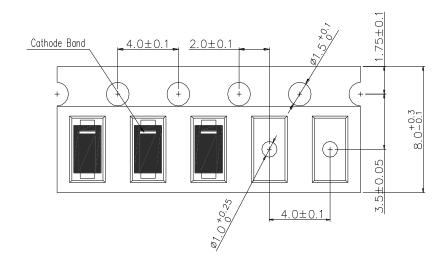


Packing Information

Packing quantities:

Reel size	Quantity/reel	Quantity/inner Box	Quantity/Carton
7"	3K	30K	120K

Tape & Reel Specification





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