

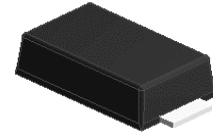
1A,150-200V Schottky Barrier Rectifiers

Features

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



RoHS
COMPLIANT



iSGA (SOD-123HS)

Applications

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

Maximum Ratings & Electrical Characteristics (T _A =25°C unless otherwise noted)				
Parameter	Symbol	PS1150	PS1200	Unit
Maximum repetitive peak reverse voltage	V _{RRM}	150	200	V
Maximum RMS voltage	V _{RMS}	105	140	V
Maximum DC blocking voltage	V _{DC}	150	200	V
Maximum average forward rectified current	I _{F(AV)}	1		A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load per diode	I _{FSM}	40		A
Operating junction temperature range	T _J	-55 to +150		°C
Storage temperature range	T _{STG}	-55 to +150		°C

Thermal-Mechanical Specifications (T _A =25°C unless otherwise noted)			
Parameter	Symbol	Typ	Unit
Thermal Resistance, Junction to Ambient	R _{θJA}	65	°C / W
Thermal Resistance, Junction to Case	R _{θJC}	35	°C / W
Thermal Resistance, Junction to Lead	R _{θJL}	9	°C / W



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

Parameter	Symbol	Test Conditions	PS1150	PS1200	Unit
Forward Drop Voltage	V _F	I _F =0.5A	0.80		V
		I _F =1A	0.85		
Reverse leakage current @V _R	I _R	T _J =25°C	2		uA
		T _J =125°C	200		

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.

Ratings and Characteristics Curves

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

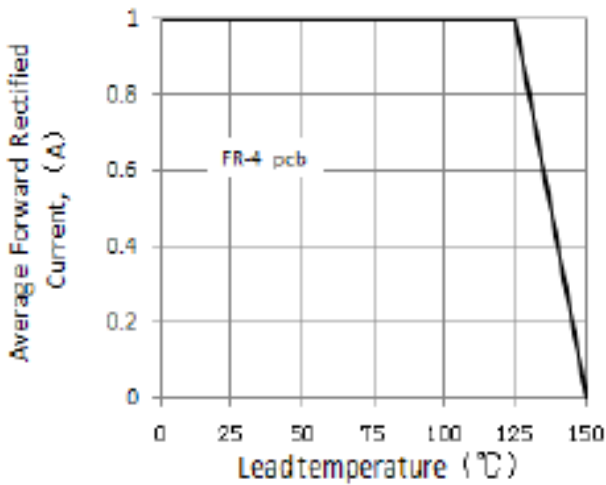


Figure 1. Forward Current Derating Curve

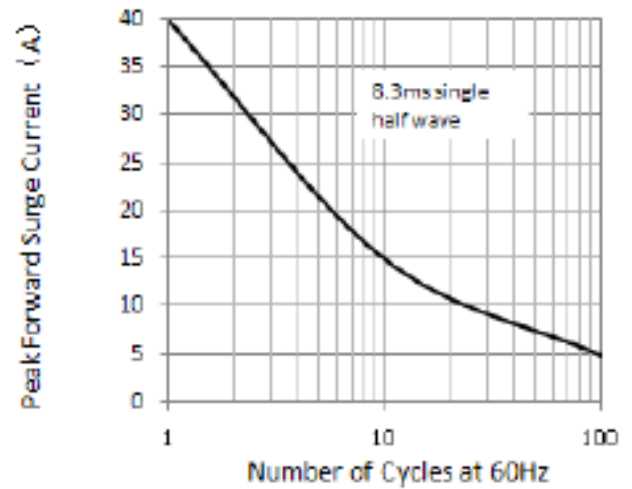


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

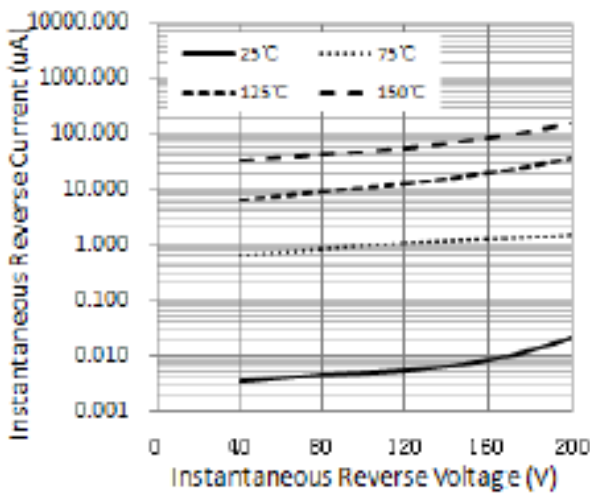


Figure 3. Typical Instantaneous Reverse Characteristics

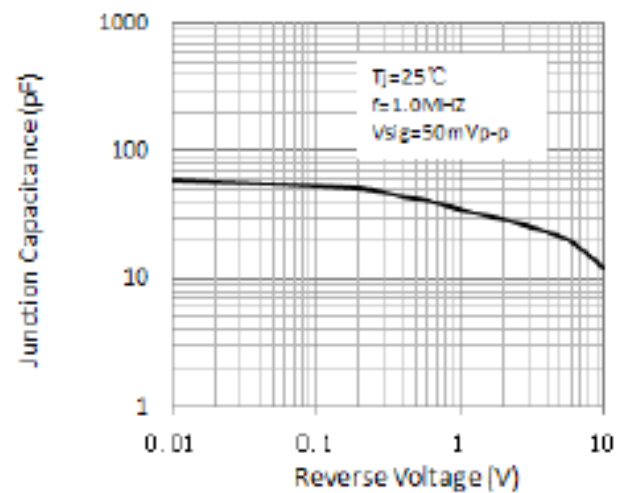


Figure 4. Typical Junction Capacitance

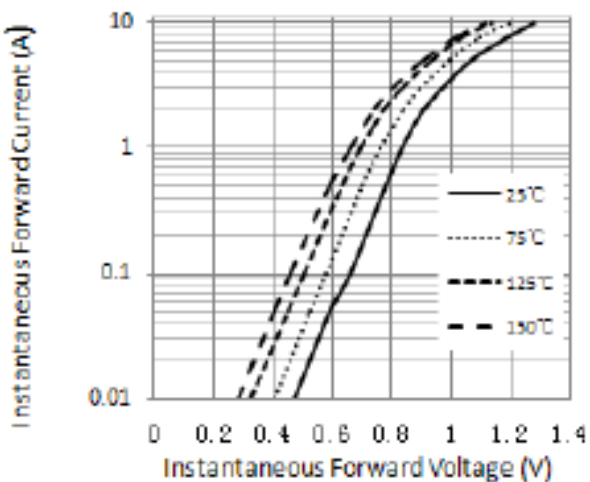
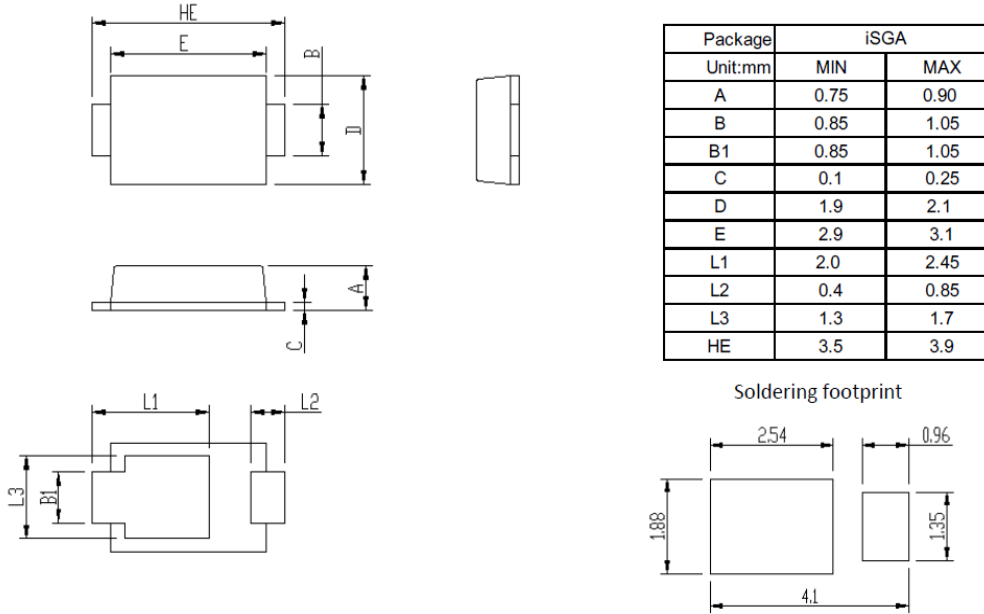


Figure 5. Typical Instantaneous Forward Characteristics

Package Outline Dimensions

in inches (millimeters)

iSGA (SOD-123HS)



Revision History

Document Version	Date of release	Description of changes
Rev.A	2021.06.01	Released Datasheet
Rev.B	2023.10.17	Modify document format

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