



Surface Mount Schottky Barrier Rectifier
Reverse Voltage - 40 to 200 V
Forward Current - 1.0A

FEATURES

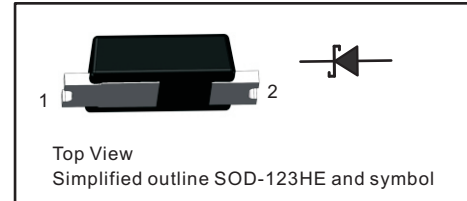
- Metal silicon junction, majority carrier conduction
- For surface mounted applications
- Low power loss, high efficiency
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications

MECHANICAL DATA

- Case: SOD-123HE
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 14mg/0.0005oz

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Absolute Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz resistive or inductive load, for capacitive load, derate by 20 %

Parameter	Symbols	SS14HE	SS16HE	SS110HE	SS115HE	SS120HE	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	40	60	100	150	200	V
Maximum RMS voltage	V_{RMS}	28	42	70	105	140	V
Maximum DC Blocking Voltage	V_{DC}	40	60	100	150	200	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	1.0					A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	25					A
Max Instantaneous Forward Voltage at 1 A	V_F	0.55	0.70	0.85	0.95		V
Maximum DC Reverse Current $T_a = 25^\circ\text{C}$ at Rated DC Reverse Voltage $T_a = 100^\circ\text{C}$	I_R	0.5 20	0.3 15				mA
Typical Junction Capacitance ⁽¹⁾	C_j	60	40				pF
Typical Thermal Resistance ⁽²⁾	$R_{\theta JA}$	120					$^\circ\text{C/W}$
Operating Junction Temperature Range	T_j	-55 ~ +150					$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55 ~ +150					$^\circ\text{C}$

(1) Measured at 1 MHz and applied reverse voltage of 4 V D.C

(2) P.C.B. mounted with 8 X 8 mm copper pad areas.



Fig.1 Forward Current Derating Curve

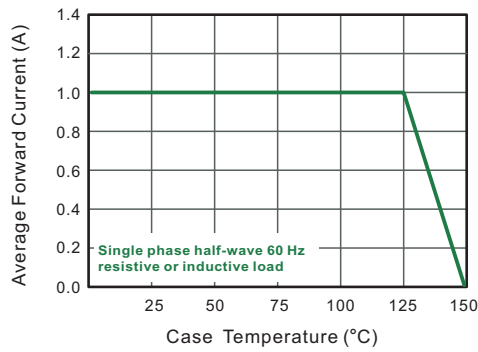


Fig.2 Typical Reverse Characteristics

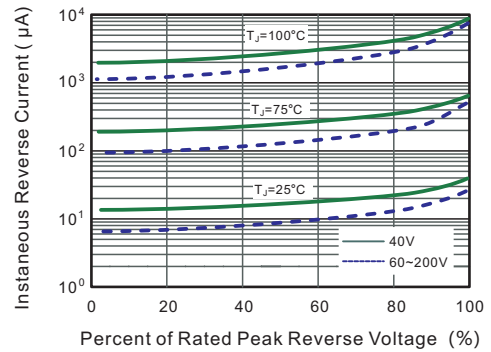


Fig.3 Typical Forward Characteristic

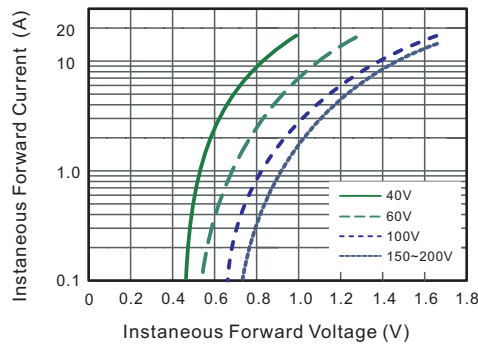


Fig.4 Typical Junction Capacitance

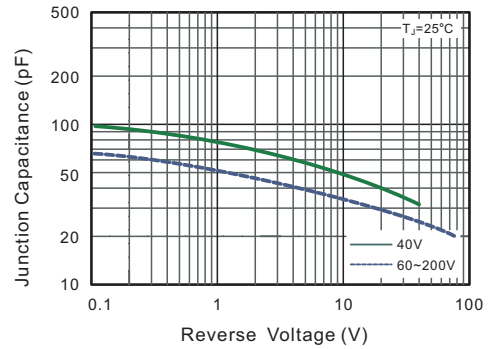


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

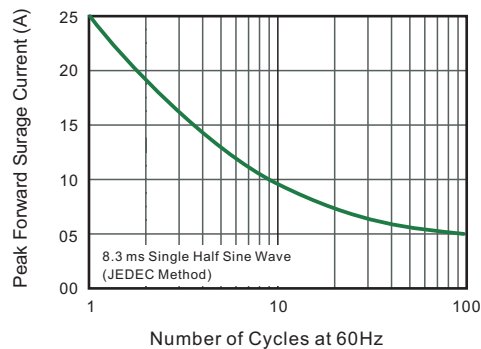
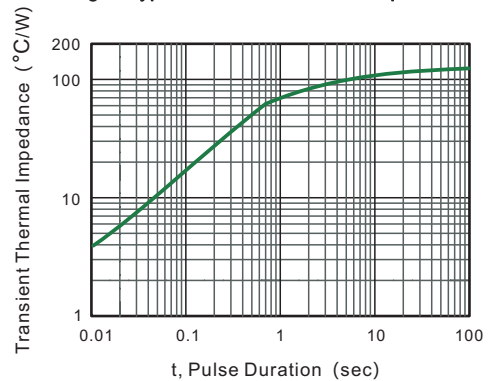


Fig.6- Typical Transient Thermal Impedance

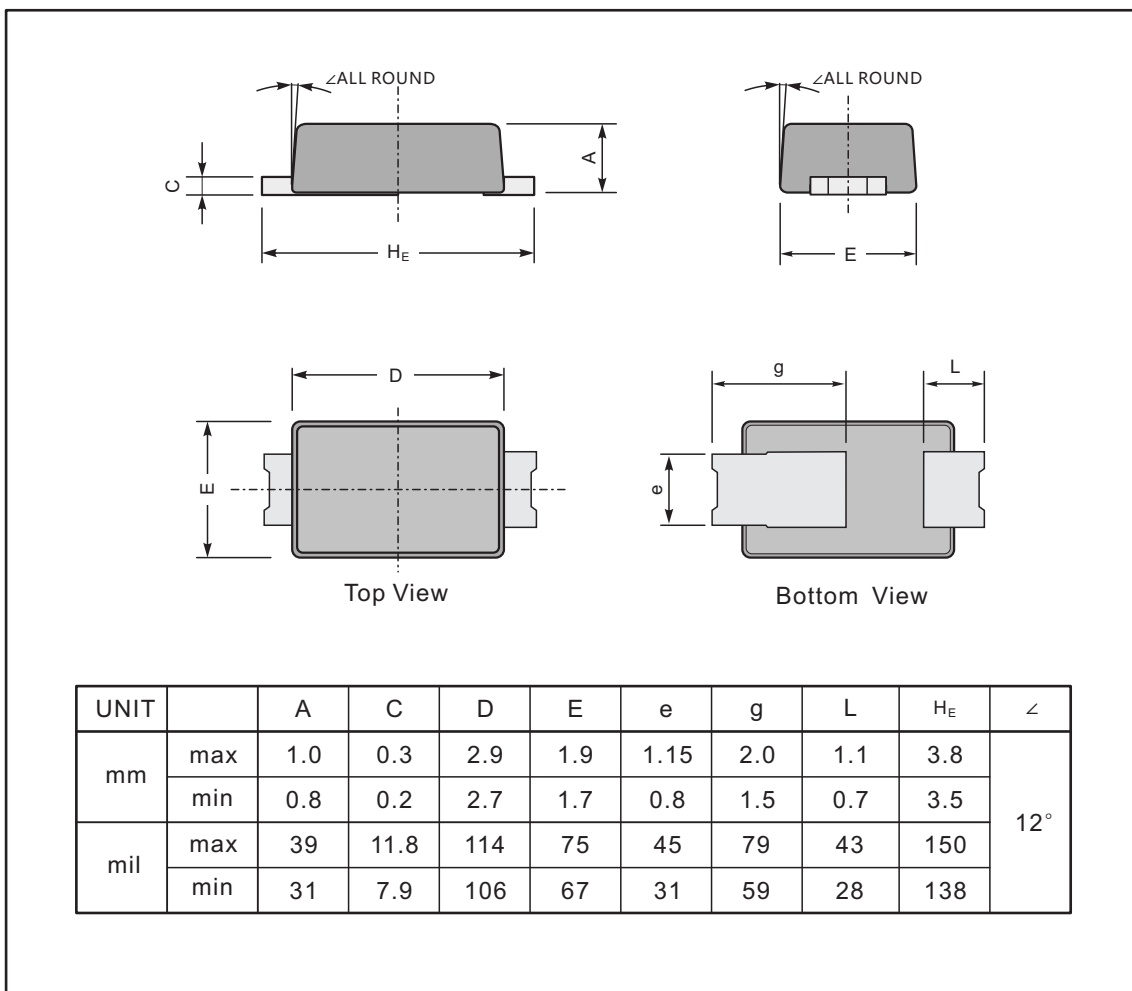




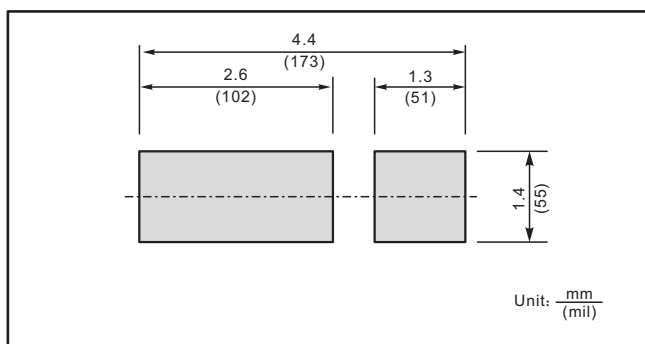
PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-123HE



The recommended mounting pad size



Marking

Type number	Marking code
SS14HE	SK14
SS16HE	SK16
SS110HE	SK110
SS115HE	SK115
SS120HE	SK120



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