



Surface Mount Schottky Rectifier

Reverse Voltage - 40V

Forward Current - 1.0A

FEATURES

- Heatsink structure
- Metal silicon junction, majority carrier conduction
- Super Low VF Schottky barrier diodes
- 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

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

Parameter	Symbols	PS14	Units
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 sinewave superimposed on rated load	I_{FSM}	15	A
Operating junction temperature range	T_j	- 55 to + 125	°C
Storage temperature range	T_{stg}	- 55 to + 150	°C

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

Parameter	Test Conditions	Symbols	PS14	Units
Minimum Breakdown voltage	$T_a = 25^{\circ}C, I_R = 1mA$	V_{BR}	40	V
Maximum instantaneous forward voltage	$I_F = 1A, T_a = 25^{\circ}C$	V_F	0.60	V
Maximum DC reverse current at rated DC blocking voltage	$T_a = 25^{\circ}C$	I_R	50	uA
Typical junction capacitance	4.0 V, 1 MHz	C_J	60	pF

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode

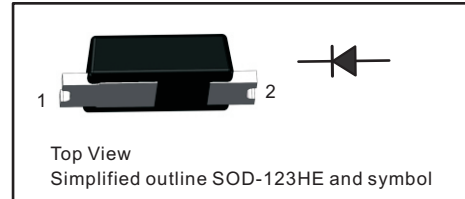




Fig.1 Forward Current Derating Curve

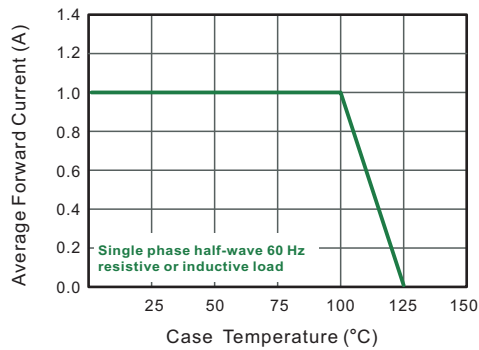


Fig.2 Typical Reverse Characteristics

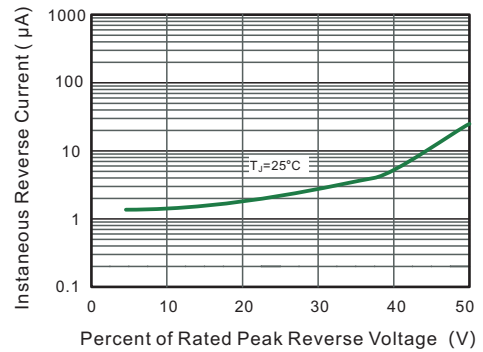


Fig.3 Typical Forward Characteristic

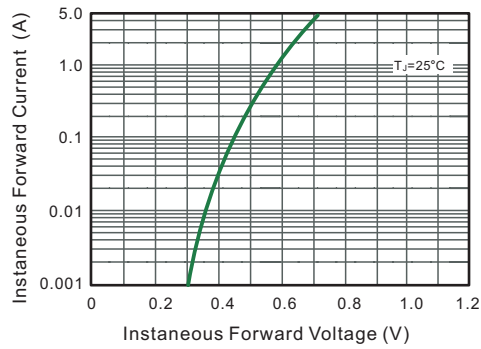


Fig.4 Typical Junction Capacitance

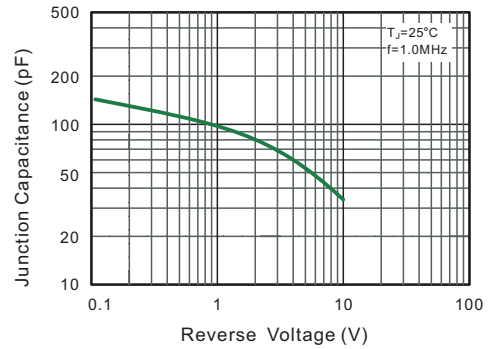
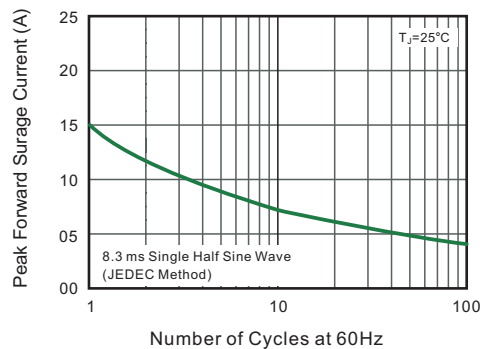


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

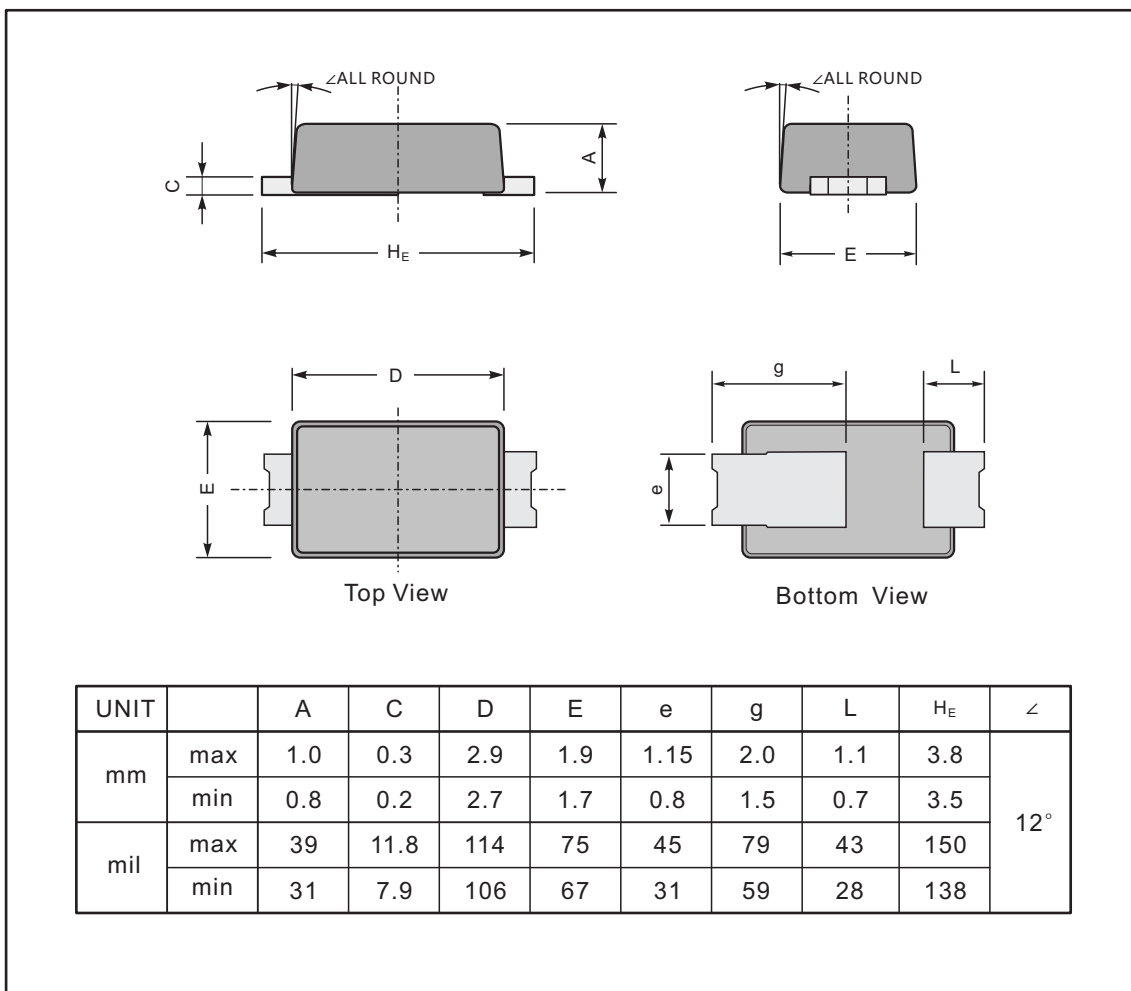




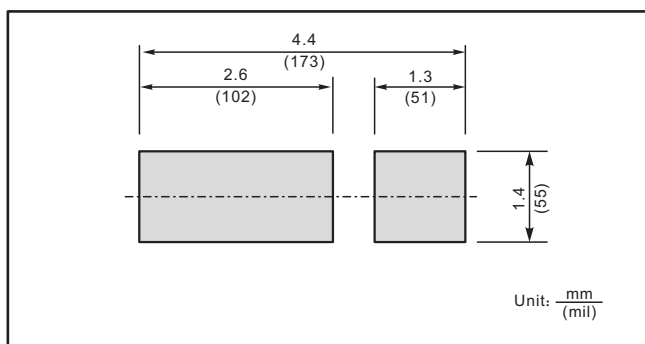
PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-123HE



The recommended mounting pad size



Marking

Type number	Marking code
PS14	P14



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