



SS13HE THRU SS1DHE

Surface Mount Schottky Barrier Rectifier

Features

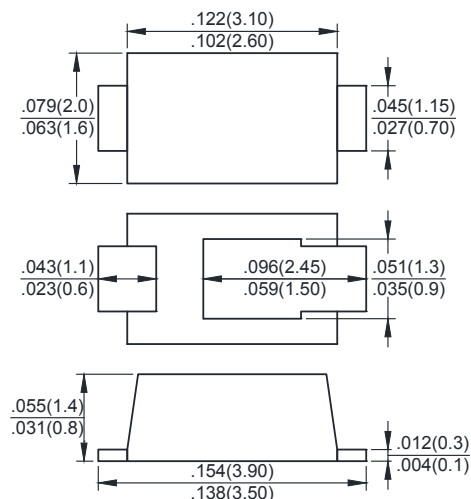
- ★ Low profile package
- ★ Ideal for automated placement
- ★ Guardring for overvoltage protection
- ★ Low power losses, high efficiency
- ★ Low forward voltage drop
- ★ High surge current capability

Mechanical Data

- ★ Case: Molded plastic, SOD-123HE
- ★ Epoxy: UL 94V-0 rate flame retardant
- ★ Terminals: Solderable per MIL-STD-750, method 2026
- ★ Polarity: Color band denotes cathode end
- ★ Mounting position: Any

Voltage Range 30 to 200V
Current 1.0 Ampere

SOD-123HE



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

PARAMETER	SYMBOL	SS13HE	SS14HE	SS15HE	SS16HE	SS1BHE	SS1CHE	SS1DHE	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	30	40	50	60	100	150	200	V
Maximum RMS voltage	V_{RMS}	21	28	35	42	70	105	140	V
Maximum DC blocking voltage	V_{DC}	30	40	50	60	100	150	200	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}	25							A
Maximum instantaneous forward voltage @ $I_F=1.0A$	V_F	0.55		0.68		0.85		0.95	V
Maximum DC reverse current at rated DC blocking voltage @ $T_A=25^\circ C$ @ $T_A=100^\circ C$	I_R	0.2 15				0.15 12			mA
Typical thermal resistance (Note 1)	$R_{\theta JA}$	125							$^\circ C/W$
	$R_{\theta JL}$	30							$^\circ C/W$
Operating junction temperature range	T_J	-55 to +150							$^\circ C$
Storage temperature range	T_{STG}	-55 to +150							$^\circ C$

NOTE : (1) PCB mounted with 6.0 mm x 6.0 mm copper pad areas.

RATINGS AND CHARACTERISTICS CURVES SS13HE THRU SS1DHE

Fig.1 - Forward Current Derating Curve

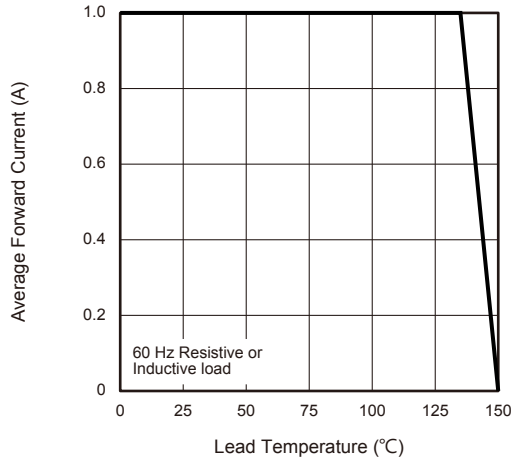


Fig.2 - Maximum Non-Repetitive Peak Forward Surge Current

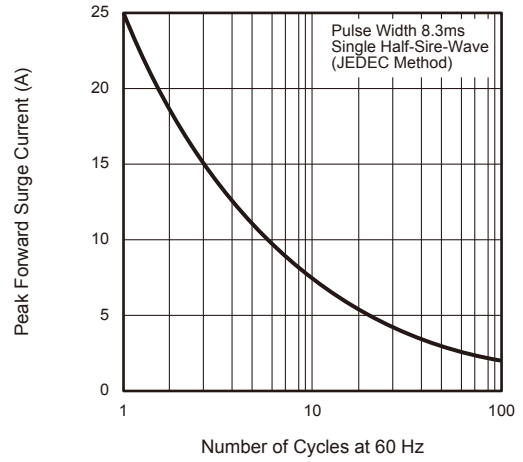


Fig.3 - Typical Instantaneous Forward Characteristics

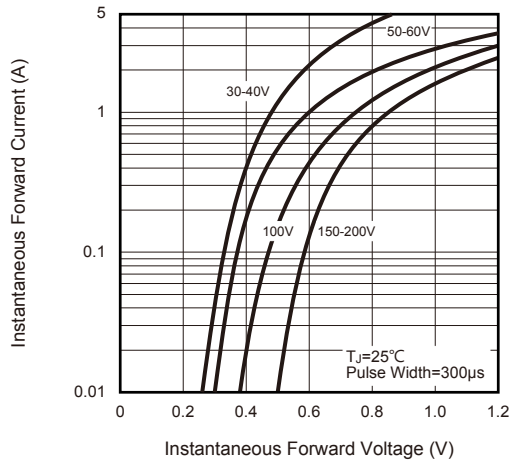


Fig.4 - Typical Reverse Leakage Characteristics

