



SS3020HE SERIES

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

VOLTAGE 20~200 Volts **CURRENT** 3.0 Amperes

SOD-123HE Unit : inch(mm)

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- For surface mounted applications
- Low profile package
- Built-in strain relief
- Metal to silicon rectifier, majority carrier conduction
- Low power loss, high efficiency
- High surge capacity
- For use in low voltage high frequency inverters, free wheeling, and polarity protection applications

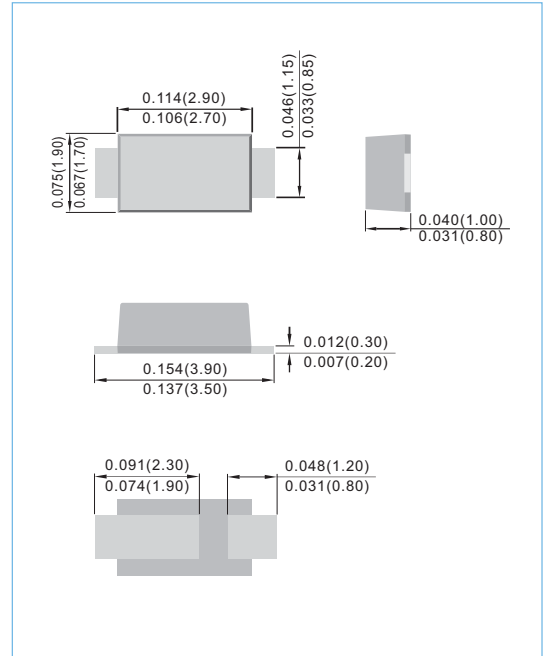
MECHANICAL DATA

Case: SOD-123HE molded plastic

Terminals: Solder plated, solderable per MIL-STD-750, Method 2026

Approx. Weight: 0.00015 ounces, 0.00424 grams

Polarity: Color band cathode



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Resistive or inductive load.

PARAMETER	SYMBOL	SS3020-HE	SS3030-HE	SS3040-HE	SS3060-HE	SS30100-HE	SS30150-HE	SS30200-HE	UNITS
Marking Code		EA	EB	EC	ED	EF	EH	EJ	
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	30	40	60	100	150	200	V
Maximum RMS Voltage	V_{RMS}	14	21	28	42	70	105	140	V
Maximum DC Blocking Voltage	V_{DC}	20	30	40	60	100	150	200	V
Maximum Average Forward Current at $T_L=75^\circ\text{C}$	$I_{F(AV)}$	3.0							A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load(JEDEC method)	I_{FSM}	80							A
Maximum Forward Voltage at 3.0A (Note 1)	V_F	0.52		0.65		0.8	0.86	0.86	V
Maximum DC Reverse Current $T_J=25^\circ\text{C}$	I_R	160		100		20	20	20	μA
Typical Thermal Resistance (Note 2)	$R_{\theta JL}$ $R_{\theta JA}$			20		105			$^\circ\text{C} / \text{W}$
Operating Junction Temperature Range	T_J	-55 to +125		-55 to +150					$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +125		-55 to +150					$^\circ\text{C}$

NOTES:

1. Pulse Test with PW =300 μsec , 1% Duty Cycle.
2. Mounted on 50cm² FR-4 PCB Board.



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RATING AND CHARACTERISTIC CURVES

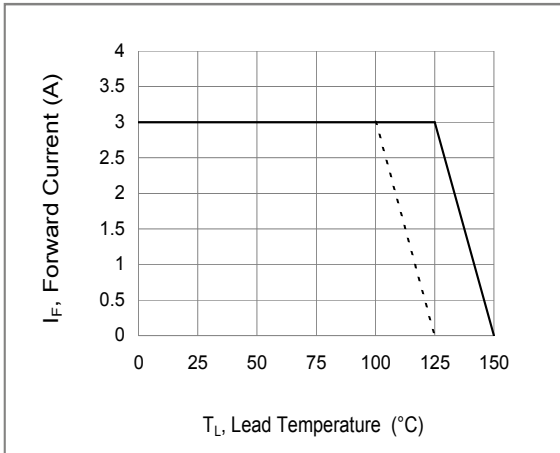


Fig.1 Forward Current Derating Curve

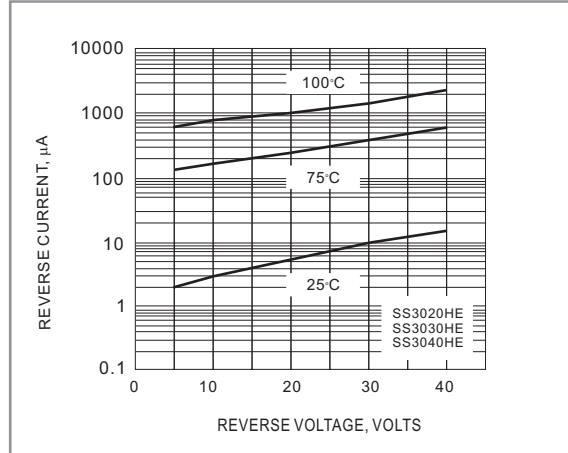


Fig.2- TYPICAL REVERSE CHARACTERISTICS

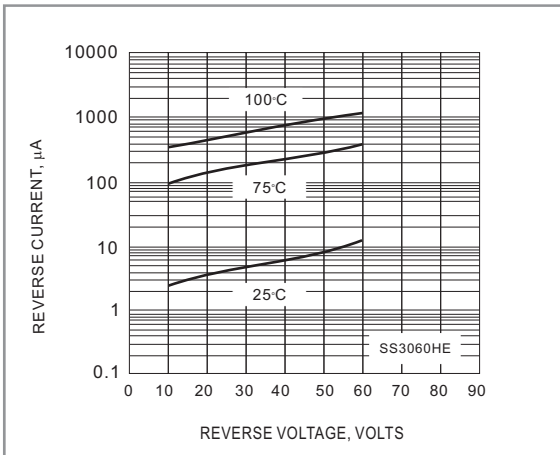


Fig.3- TYPICAL REVERSE CHARACTERISTICS

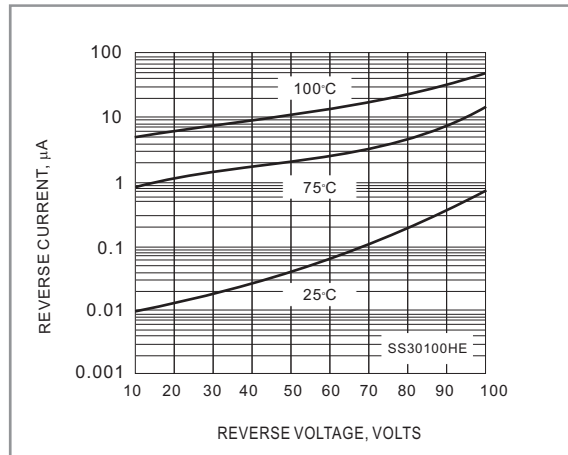


Fig.4- TYPICAL REVERSE CHARACTERISTICS

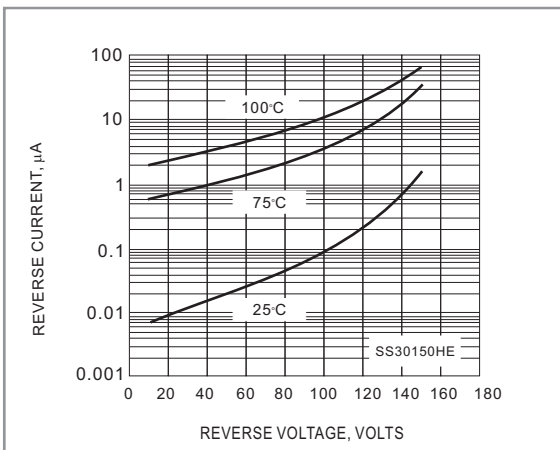


Fig.5- TYPICAL REVERSE CHARACTERISTICS

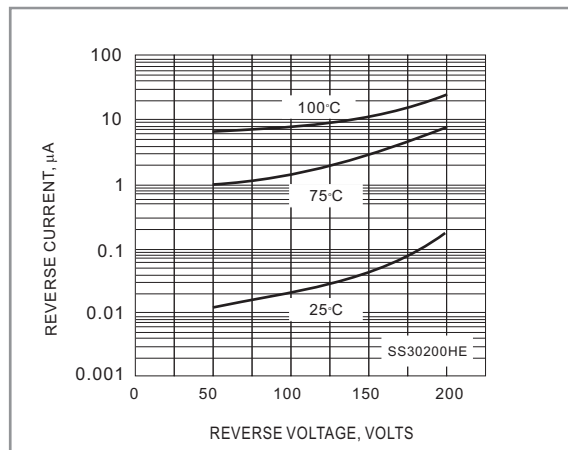


Fig.6- TYPICAL REVERSE CHARACTERISTICS



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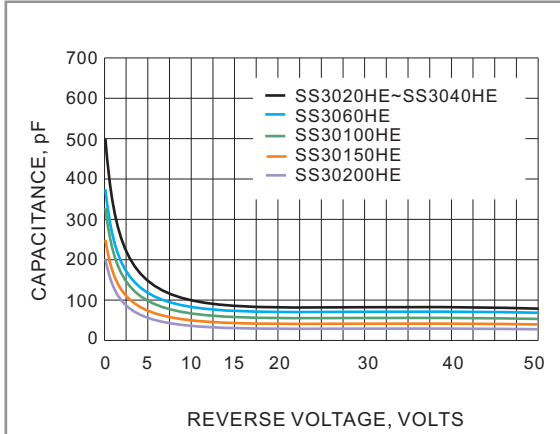


Fig.7- TYPICAL JUNCTION CAPACITANCE

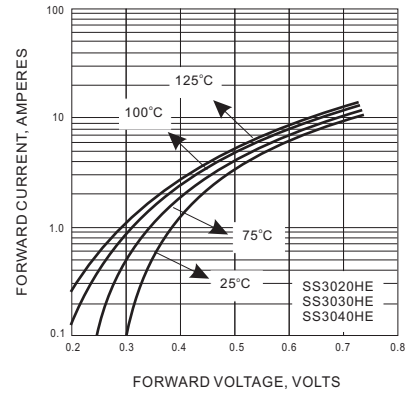


Fig.8- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

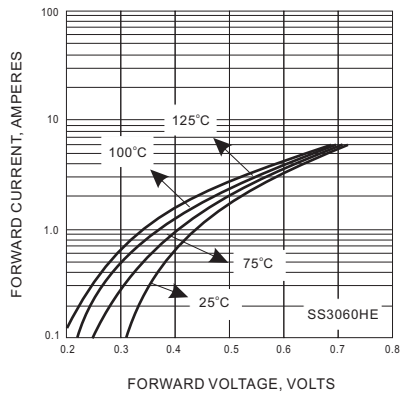


Fig.9- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

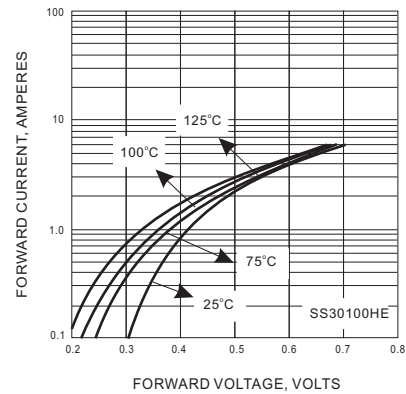


Fig.10- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

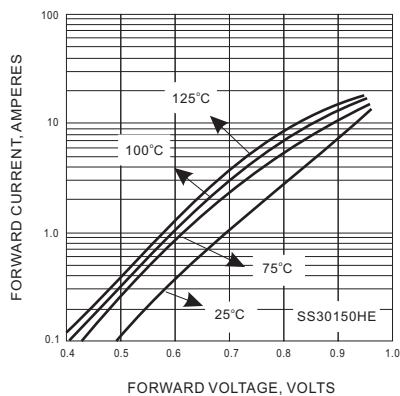


Fig.11- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

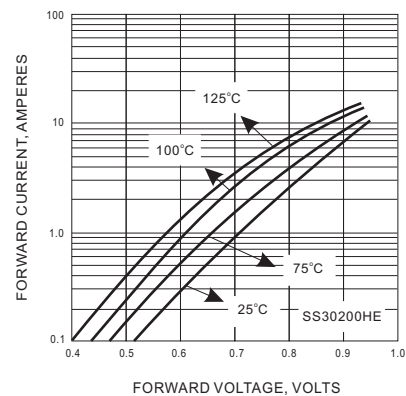
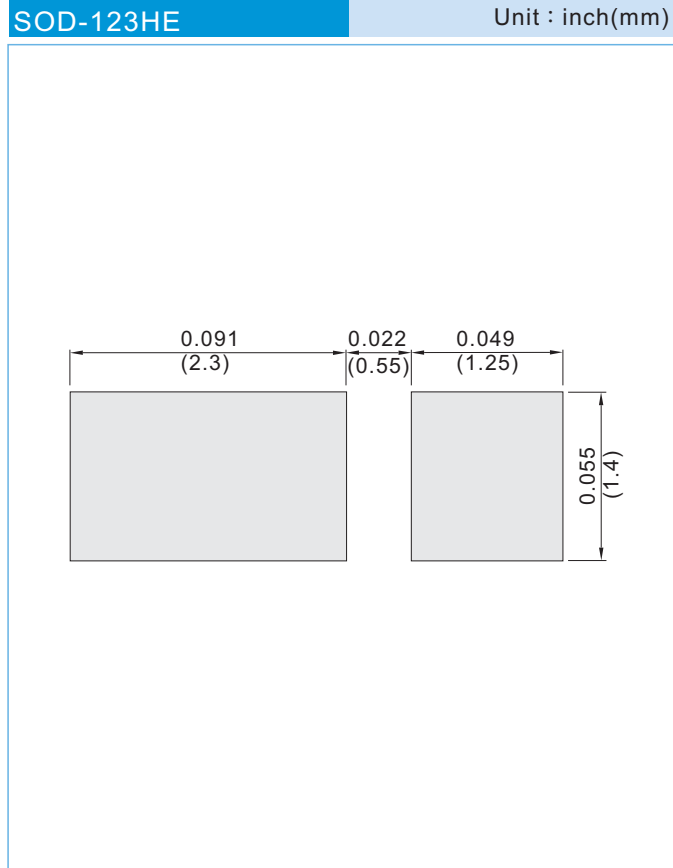


Fig.12- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



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MOUNTING PAD LAYOUT



ORDER INFORMATION

- Packing information
 - T/R - 10K per 13" plastic Reel
 - T/R - 3K per 7" plastic Reel

LEGAL STATEMENT

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