

## SS3020HE SERIES

### SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

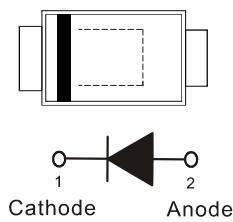
VOLTAGE    20~200 Volt    CURRENT    3 Ampere

#### FEATURES

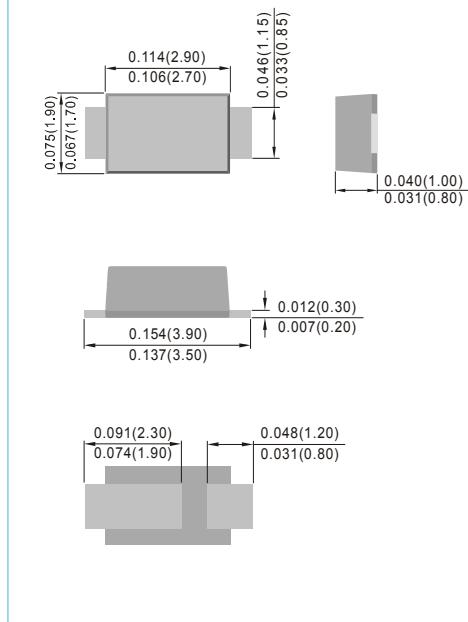
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- For surface mounted applications in order to optimize board space
- Low power loss, high efficiency
- High surge capacity
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

#### MECHANICAL DATA

- Case: SOD-123HE molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Approx weight: 0.0006 ounces, 0.0184 grams



SOD-123HE    Unit : inch(mm)



#### 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	$I_{F(AV)}$	3							A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	80							A
Maximum Forward Voltage at 3A (Note 1)	$V_F$	0.52		0.65	0.8	0.86	0.86	0.86	V
Maximum DC Reverse Current $T_J=25^\circ C$	$I_R$	160		100	20	20	20	20	$\mu A$
Typical Thermal Resistance (Note 2)	$R_{\theta JL}$ $R_{\theta JA}$	20 105							$^\circ C / W$
Operating Junction Temperature Range	$T_J$	-55 to +125		-55 to +150					$^\circ C$
Storage Temperature Range	$T_{STG}$	-55 to +125		-55 to +150					$^\circ C$

#### NOTES :

1. Pulse Test with PW =300 $\mu$ sec, 1% Duty Cycle.
2. Mounted on 50cm<sup>2</sup> FR-4 PCB Board

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### TYPICAL CHARACTERISTIC CURVES

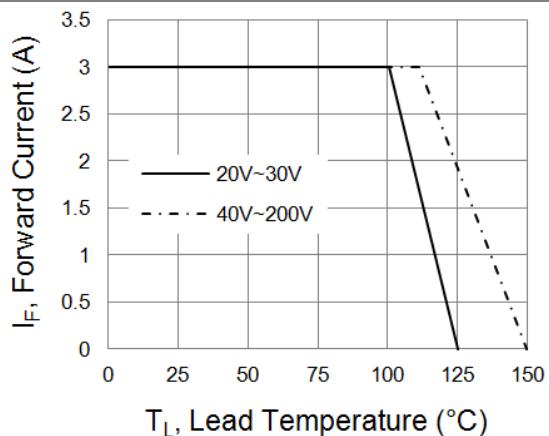


Fig.1 Forward Current Derating Curve

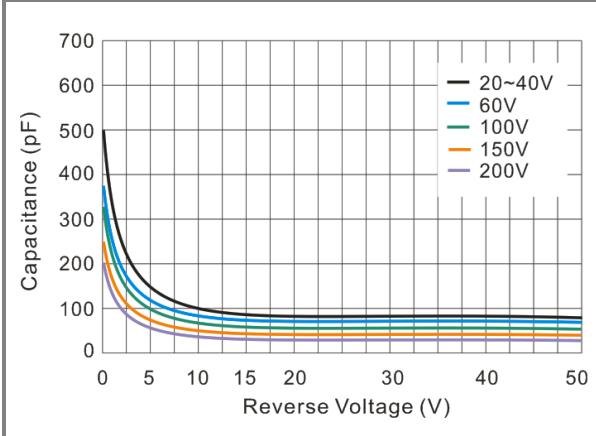


Fig. 2 Typical Junction Capacitance

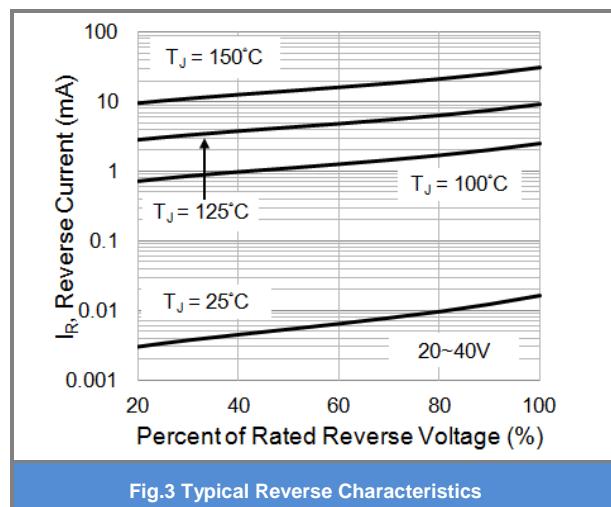


Fig.3 Typical Reverse Characteristics

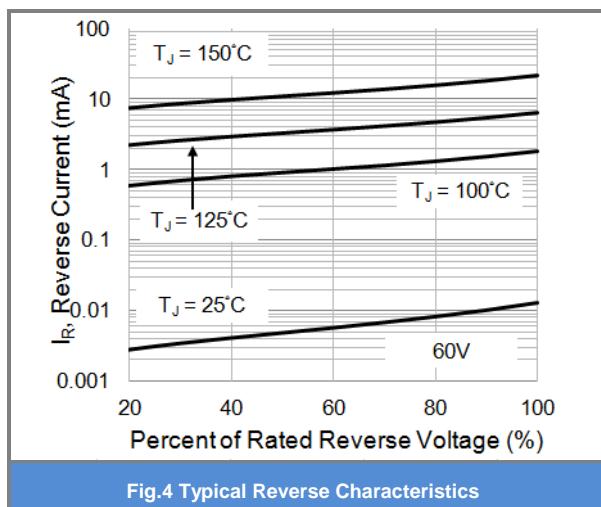


Fig.4 Typical Reverse Characteristics

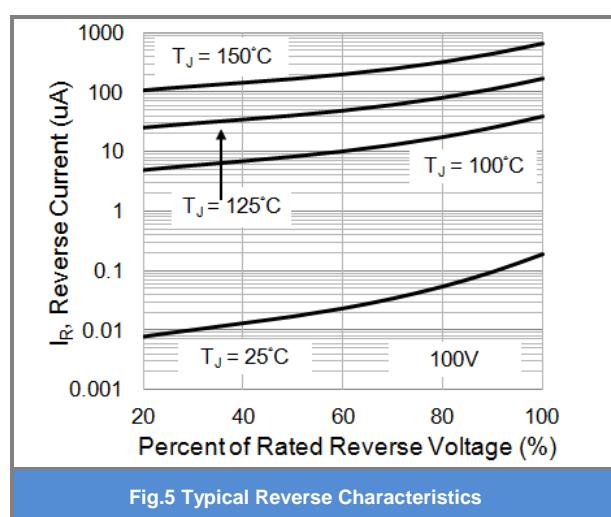


Fig.5 Typical Reverse Characteristics

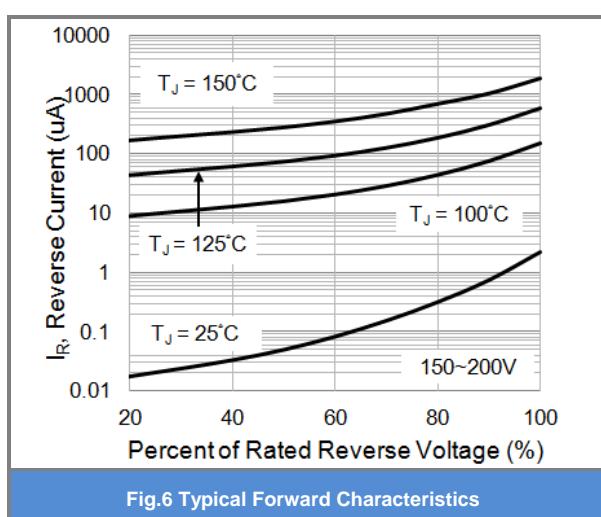


Fig.6 Typical Forward Characteristics

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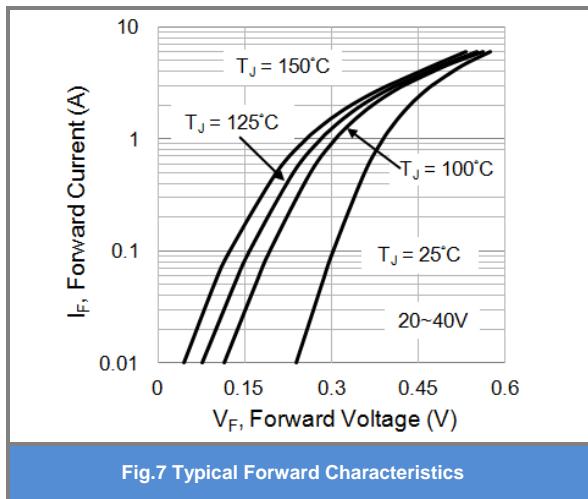


Fig.7 Typical Forward Characteristics

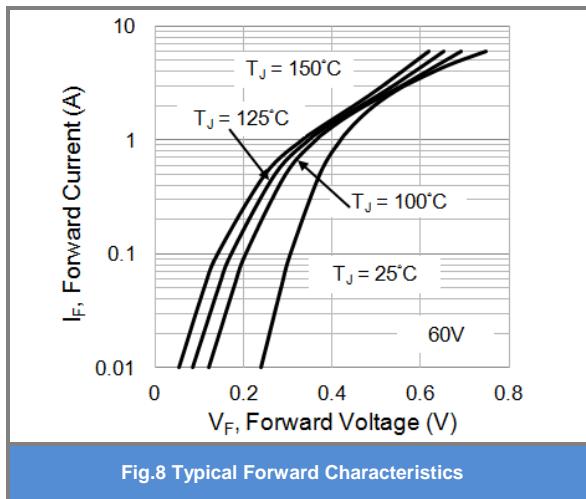


Fig.8 Typical Forward Characteristics

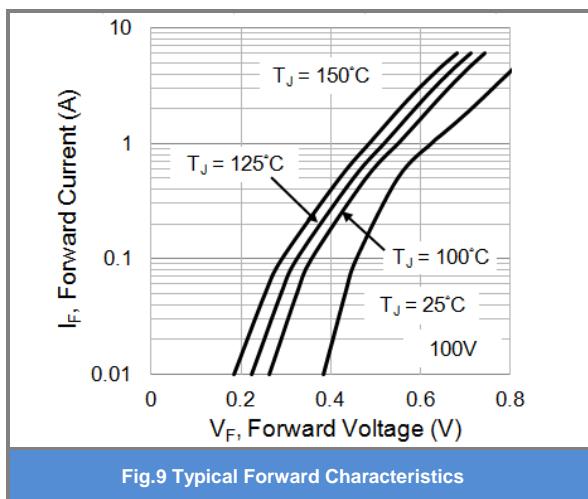


Fig.9 Typical Forward Characteristics

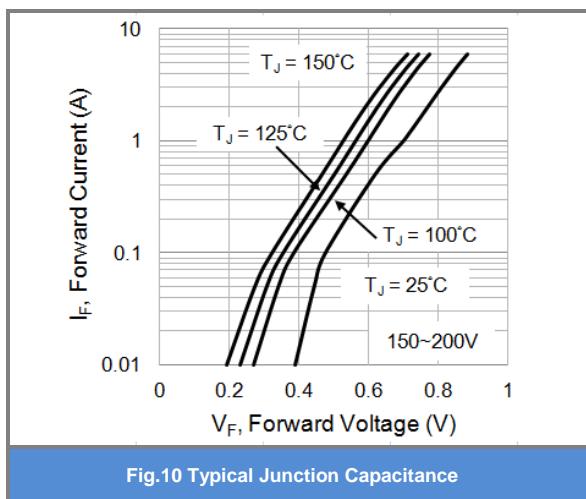


Fig.10 Typical Junction Capacitance

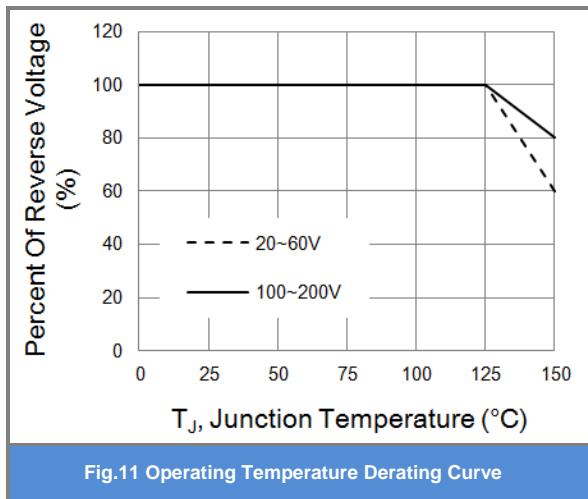
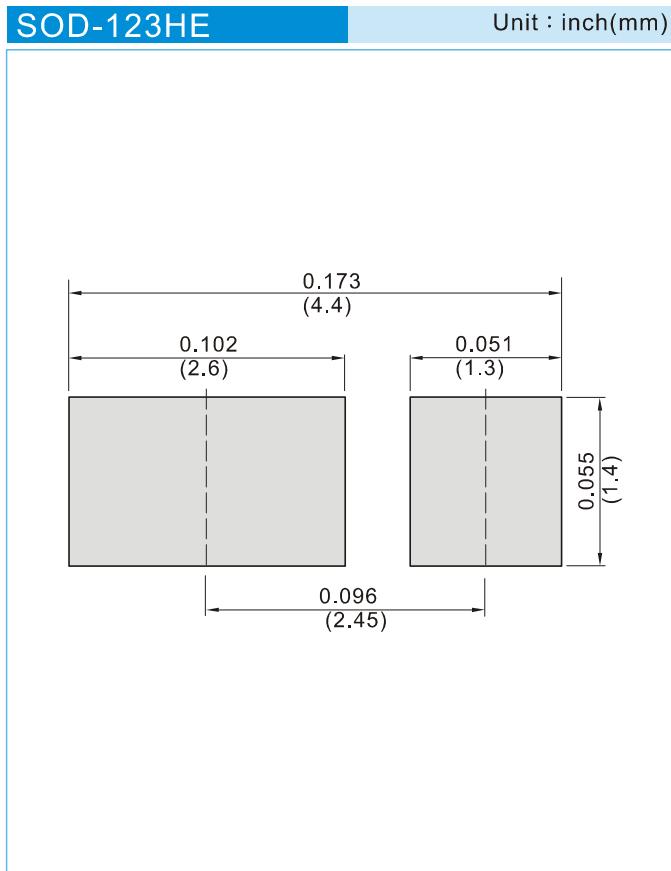


Fig.11 Operating Temperature Derating Curve

# **SS3020HE SERIES**

## MOUNTING PAD LAYOUT



## **ORDER INFORMATION**

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

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