



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-O
- 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
- Lead free in comply with EU RoHS 2002/95/EC directives.
- Green molding compound as per IEC61249 Std. . (Halogen Free)

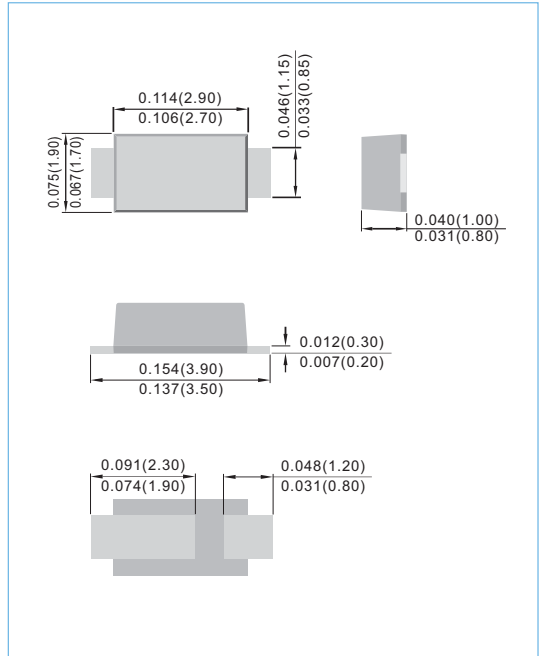
MECHANICAL DATA

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

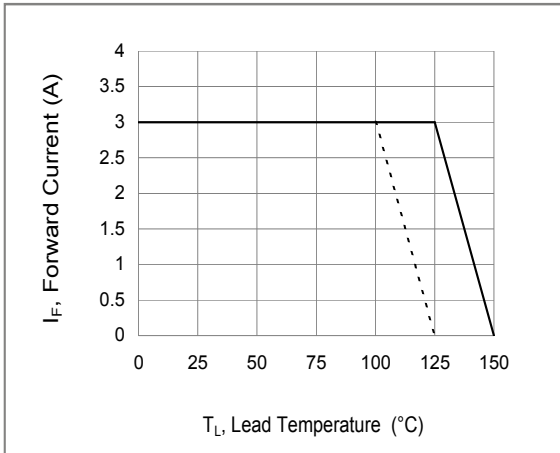


Fig.1 Forward Current Derating Curve

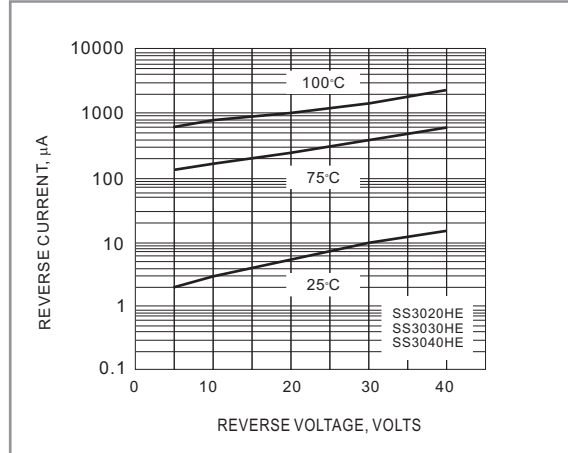


Fig.2- TYPICAL REVERSE CHARACTERISTICS

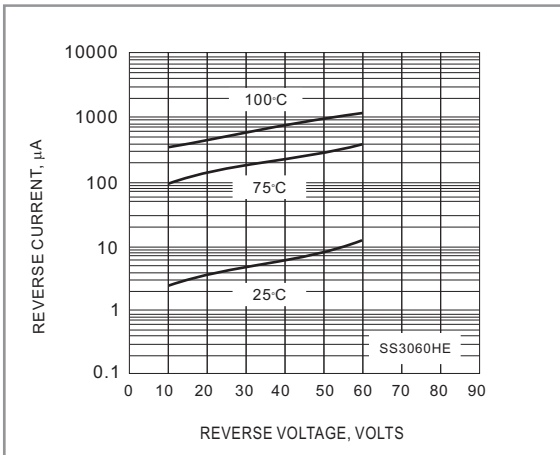


Fig.3- TYPICAL REVERSE CHARACTERISTICS

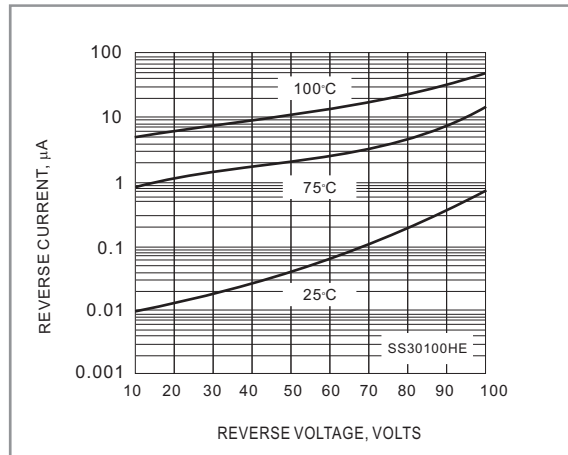


Fig.4- TYPICAL REVERSE CHARACTERISTICS

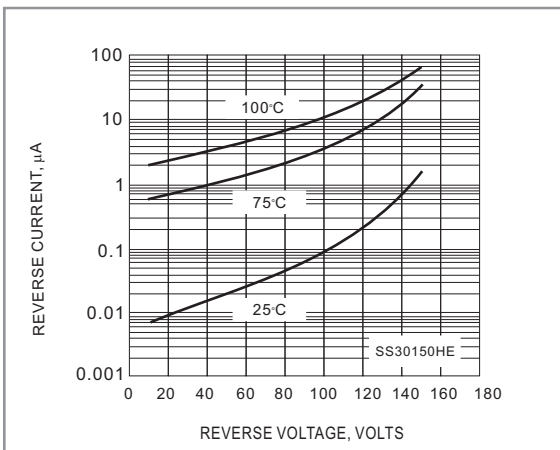


Fig.5- TYPICAL REVERSE CHARACTERISTICS

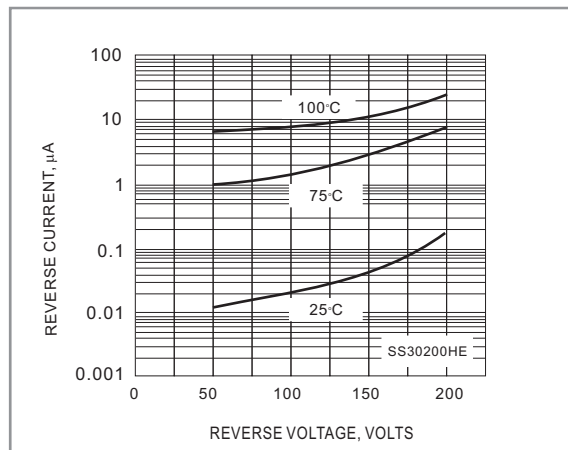


Fig.6- TYPICAL REVERSE CHARACTERISTICS



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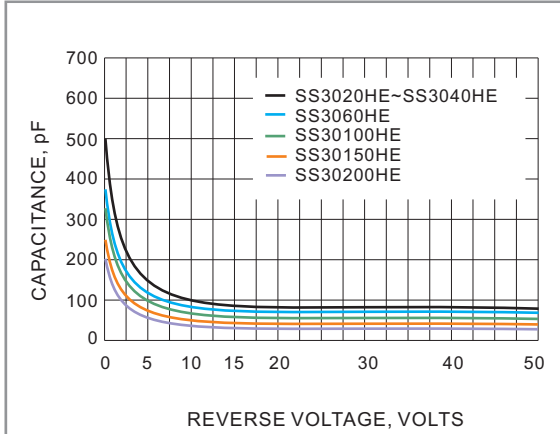


Fig.7- TYPICAL JUNCTION CAPACITANCE

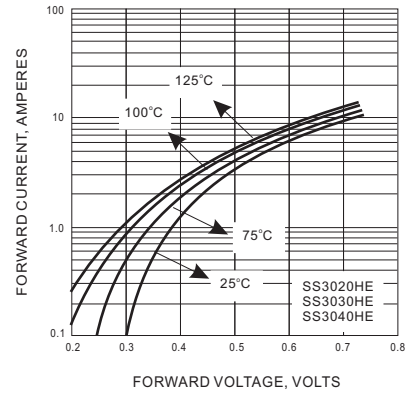


Fig.8- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

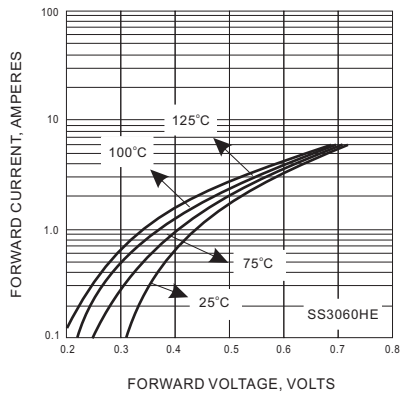


Fig.9- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

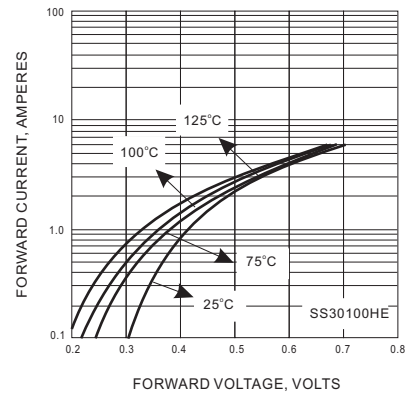


Fig.10- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

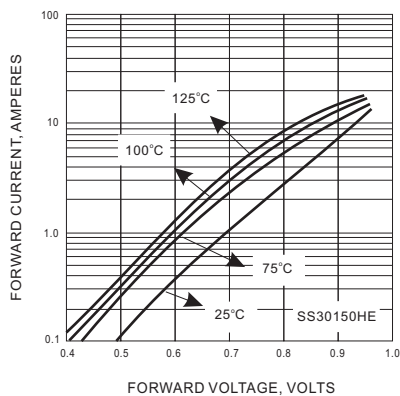


Fig.11- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

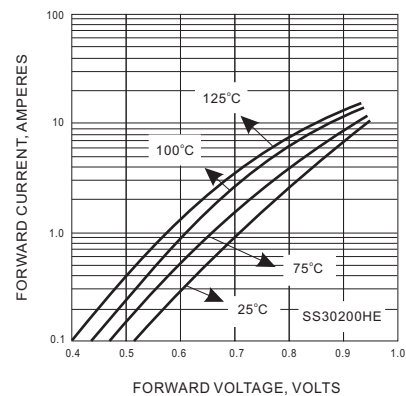
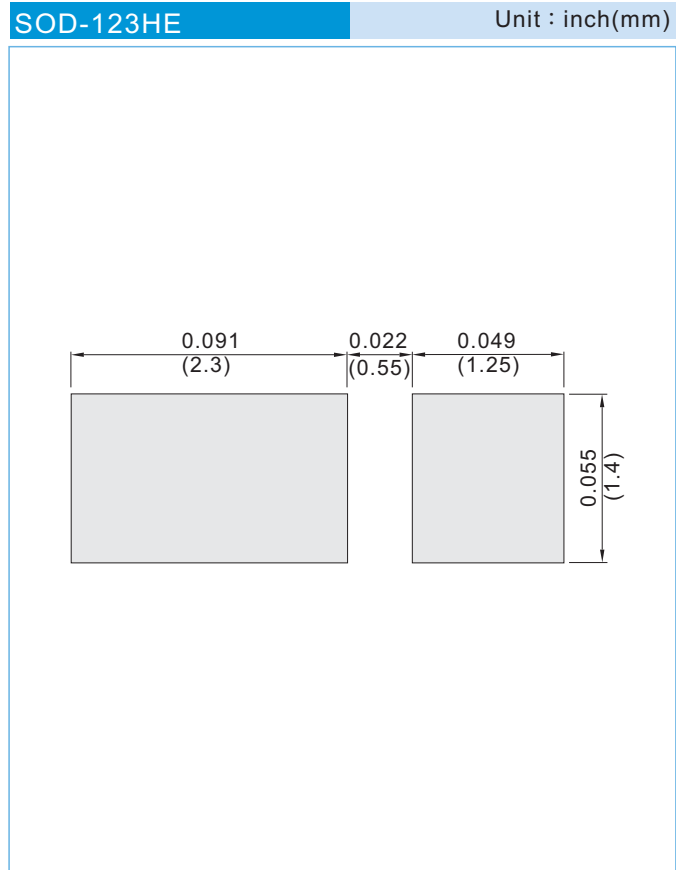


Fig.12- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



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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



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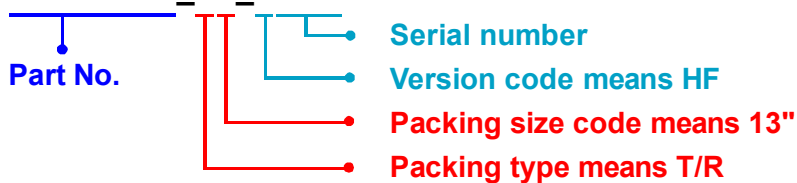
Part No_packing code_Version

SS3020HE_R1_00001

SS3020HE_R2_00001

For example :

RB500V-40_R2_00001



Packing Code XX				Version Code XXXXX		
Packing type	1 st Code	Packing size code	2 nd Code	HF or RoHS	1 st Code	2 nd ~5 th Code
Tape and Ammunition Box (T/B)	A	N/A	0	HF	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number
Bulk Packing (B/P)	B	13"	2			
Tube Packing (T/P)	T	26mm	X			
Tape and Reel (Right Oriented) (TRR)	S	52mm	Y			
Tape and Reel (Left Oriented) (TRL)	L	PANASERT T/B CATHODE UP (PBCU)	U			
FORMING	F	PANASERT T/B CATHODE DOWN (PBCD)	D			