



### SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

VOLTAGE 20~200 Volt

CURRENT

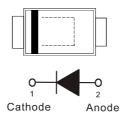
3 Ampere

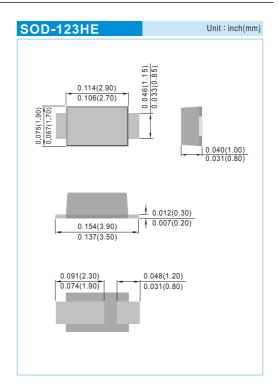
#### **FEATURES**

- 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





### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

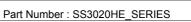
Ratings at 25°C ambient temperature unless otherwise specified. Resistive or inductive load.

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 <sub>RRM</sub>	20	30	40	60	100	150	200	V
Maximum RMS Voltage	V <sub>RMS</sub>	14	21	28	42	70	105	140	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	20	30	40	60	100	150	200	V
Maximum Average Forward Current	I <sub>F(AV)</sub>	3						А	
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load	I FSM	80							А
Maximum Forward Voltage at 3A (Note 1)	V <sub>F</sub>	0.52 0.65 0.8			0.8	0.86	0.86	V	
Maximum DC Reverse Current T <sub>J</sub> =25°C	I <sub>R</sub>	160 100 20 20 20			20	μА			
Typical Thermal Resistance (Note 2)	$R_{_{ heta JA}}$	20 105						°C / W	
Operating Junction Temperature Range	T	-55 to +125 -55 to +150					°C		
Storage Temperature Range	T <sub>STG</sub>	-55 to +125 -55 to +150						°C	

#### NOTES

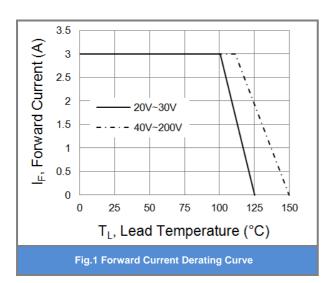
- 1. Pulse Test with PW =300µsec, 1% Duty Cycle.
- 2. Mounted on 50cm<sup>2</sup> FR-4 PCB Board

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#### **TYPICAL CHARACTERISTIC CURVES**



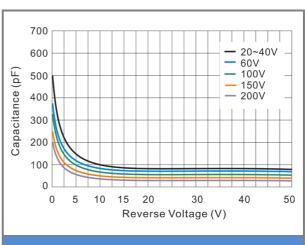


Fig. 2 Typical Junction Capacitance

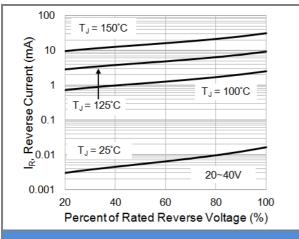


Fig.3 Typical Reverse Characteristics

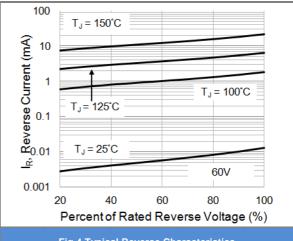


Fig.4 Typical Reverse Characteristics

 $T_J = 100^{\circ}C$ 

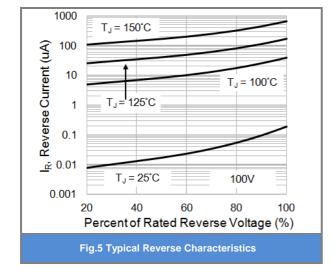
150~200V

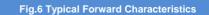
100

 $T_{J} = 150^{\circ}C$ 

 $T_J = 125^{\circ}C$ 

 $T_{J} = 25^{\circ}C$ 





60

Percent of Rated Reverse Voltage (%)

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10000

lg, Reverse Current (uA)

0.01

20





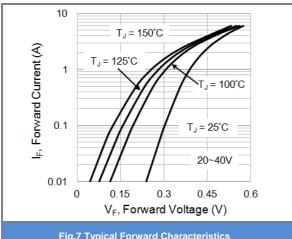
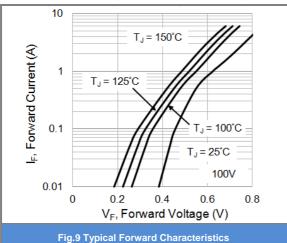
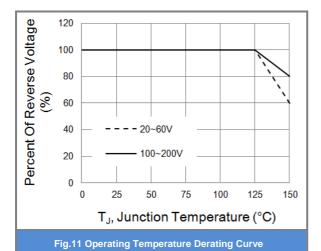


Fig.7 Typical Forward Characteristics





10  $T_J = 150^{\circ}C$ IF, Forward Current (A) T<sub>J</sub> = 125°C T<sub>J</sub> = 100°C 0.1  $T_J = 25^{\circ}C$ 60V 0.01 0.4 0.6 8.0 V<sub>F</sub>, Forward Voltage (V) Fig.8 Typical Forward Characteristics

Part Number: SS3020HE\_SERIES

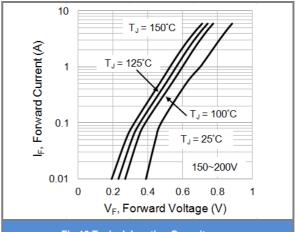


Fig.10 Typical Junction Capacitance

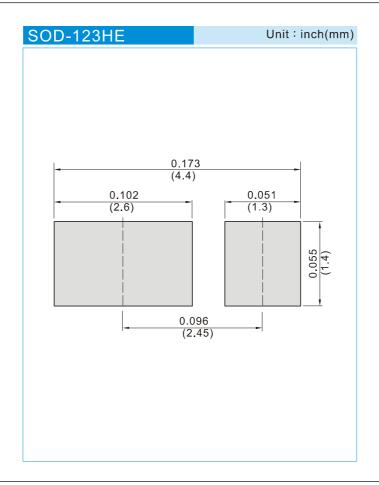
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### **MOUNTING PAD LAYOUT**

CONDUCTOR



### **ORDER INFORMATION**

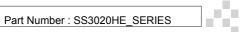
· Packing information

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:



Packing Code XX					Version Code XXXXXX			
Packing type	1 <sup>st</sup> Code	Packing size code	2 <sup>nd</sup> Code	HF or RoHS	1 <sup>st</sup> Code	2 <sup>nd</sup> ~5 <sup>th</sup> Code		
Tape and Ammunition Box (T/B)	Α	N/A	0	HF	0	serial number		
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number		
Bulk Packing (B/P)	В	13"	2					
Tube Packing (T/P)	Т	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					

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