



# SS0520~SS0540

## SURFACE MOUNT SCHOTTKY BARRIER

**VOLTAGE** 20 to 40 Volt **CURRENT** 0.5 Ampere

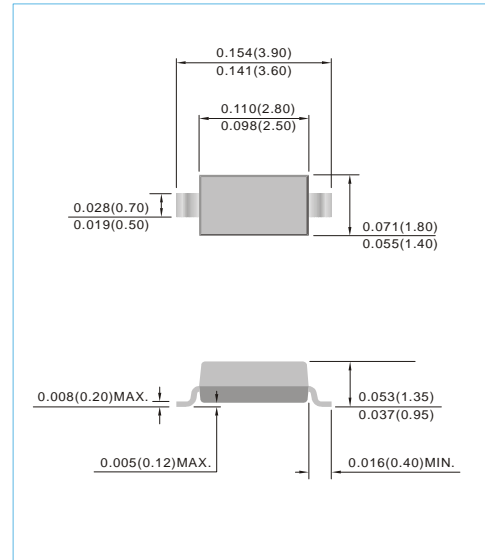
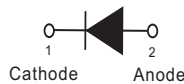
**SOD-123** Unit : inch(mm)

### FEATURES

- Low turn-on voltage
- Fast switching
- PN Junction Guard Ring for Transient and ESD Protection.
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Green molding compound as per IEC61249 Std. . (Halogen Free)

### MECHANICAL DATA

- Case: SOD-123, Plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Approx. Weight: 0.0004 ounces, 0.01 grams



### MAXIMUM RATINGS ( $T_A=25^\circ\text{C}$ unless otherwise noted)

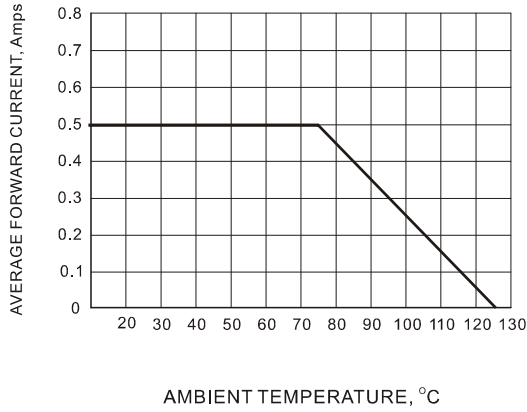
PARAMETER	SYMBOL	SS0520	SS0530	SS0540	UNITS
Marking Code		B2	B3	B4	
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	20	30	40	V
Maximum RMS Voltage	$V_{RMS}$	14	21	28	V
Maximum DC Blocking Voltage	$V_{DC}$	20	30	40	V
Maximum Average Forward Current at $T_A=75^\circ\text{C}$	$I_{AV}$	0.5			A
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	5.5			A
Power Dissipation (Mounted on 48cm <sup>2</sup> FR-4 PCB)	$P_D$	300			mW
Typical Junction Capacitance at $V_R=0\text{V DC}$	$C_J$	170			pF
Typical Thermal Resistance	$R_{\theta JL}$ $R_{\theta JA}$	150 206			$^\circ\text{C} / \text{W}$
Operating Junction and Storage Temperature Range	$T_J, T_{STG}$	-55 to +125			$^\circ\text{C}$

### ELECTRICAL CHARACTERISTICS ( $T_A=25^\circ\text{C}$ unless otherwise noted)

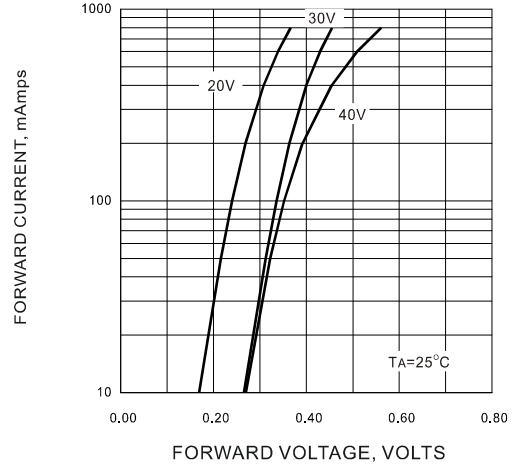
PARAMETER	SYMBOL	SS0520	SS0530	SS0540	UNITS
Maximum Instantaneous Forward Voltage	$V_F$	0.3 @ 0.1A 0.385 @ 0.5A	0.375 @ 0.1A 0.430 @ 0.5A	0.51 @ 0.5A 0.62 @ 1.0A	V
Maximum Reverse Current	$I_R$	75 @ $V_R=10\text{V}$	20 @ $V_R=15\text{V}$	10 @ $V_R=20\text{V}$	$\mu\text{A}$



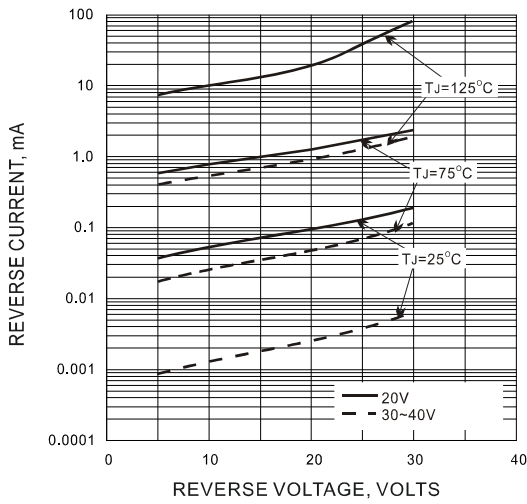
# SS0520~SS0540



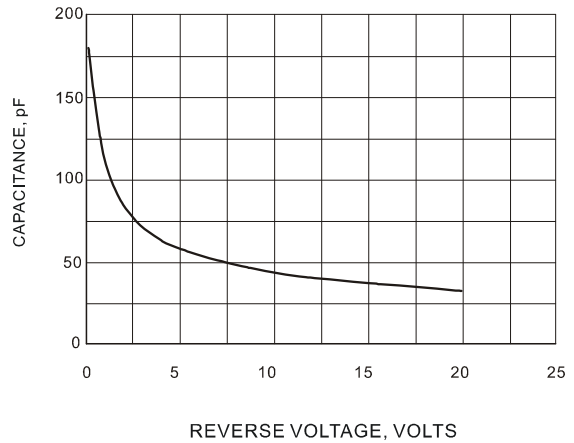
**Fig.1 FORWARD CURRENT DERATING**



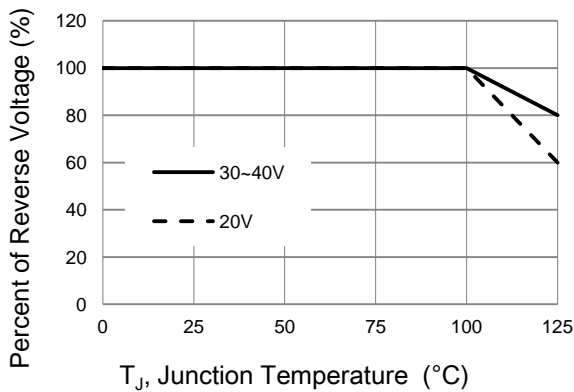
**Fig.2 TYPICAL FORWARD VOLTAGE**



**Fig.3 TYPICAL REVERSE CURRENT**



**Fig.4 TYPICAL JUNCTION CAPACITANCE**

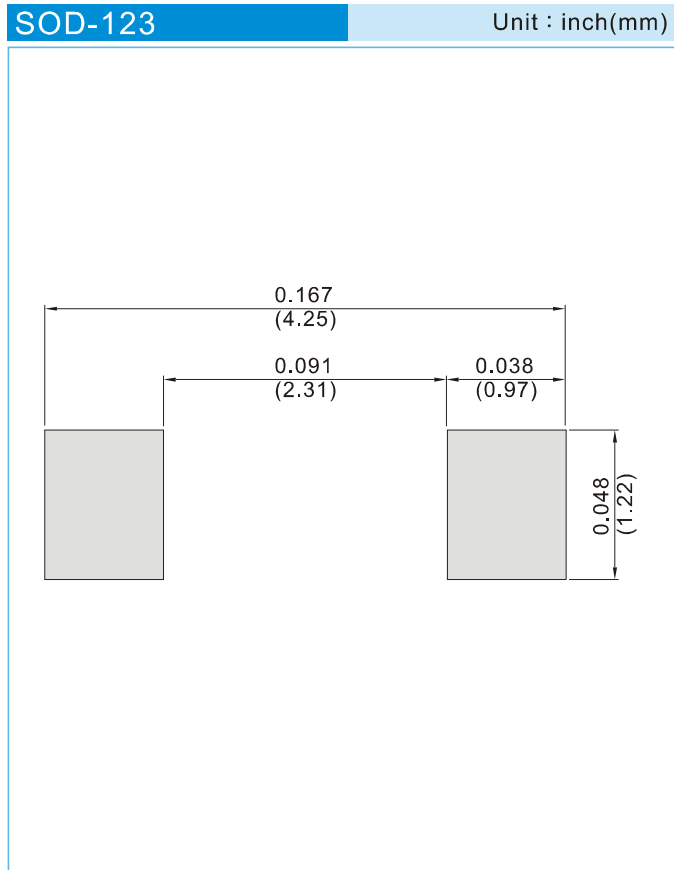


**Fig.5 Operating Temperature Derating Curve**



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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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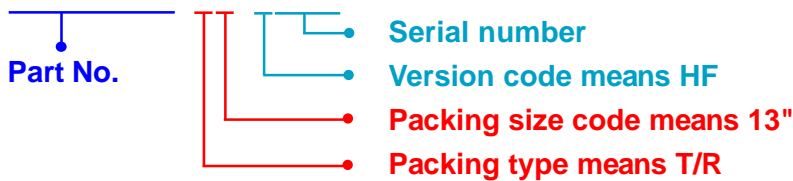
## Part No\_packing code\_Version

SS0520\_R1\_00001

SS0520\_R2\_00001

For example :

**RB500V-40** **R2** **00001**



Packing Code <b>XX</b>				Version Code <b>XXXXX</b>		
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)	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			



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