



SS1040L

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

VOLTAGE 40 Volt

CURRENT 1 A

SOD-123

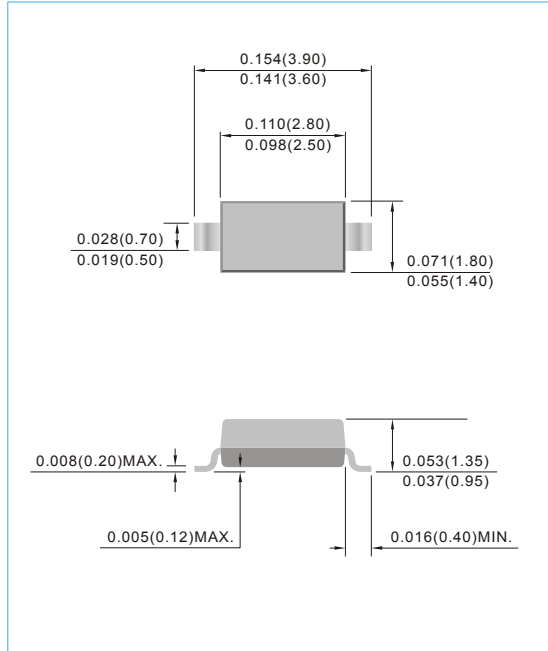
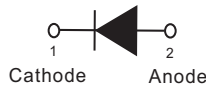
Unit : inch(mm)

FEATURES

- Guard Ring Die Construction for Transient Protection
- Low Power Loss, High Efficiency
- High Surge Capability
- High Current Capability and Low Forward Voltage Drop
- 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
- Weight : 0.0003 ounces, 0.0103 grams
- Polarity : Color band cathode
- Marking : 40L



MAXIMUM RATINGS@T_A=25°C UNLESS OTHERWISE SPECIFIED

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

PARAMETER	SYMBOL	VALUE	UNIT
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	40	V
RMS Reverse Voltage	$V_R(RMS)$	28	V
Average Rectified Output Current	I_O	1	A
Non-Repetitive Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	25	A
Power Dissipation (Note 1)	P_D	450	mW
Typical Thermal Resistance Junction to Ambient (Note 1)	$R_{\theta JA}$	222	°C/W
Operating and Storage Temperature Range	T_J, T_{STG}	-65 to + 125	°C

Notes : 1. FR-4 Board = 70 x 60 x 1mm.



SS1040L

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

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Reverse Breakdown Voltage (Note 2)	$V_{(BR)R}$	$I_R = 1\text{mA}$	40	-	-	V
Forward Voltage	V_F	$I_F = 0.1\text{A}$ $I_F = 1\text{A}$ $I_F = 3\text{A}$	- - -	- - -	0.32 0.45 0.75	V
Reverse Leakage Current (Note 2)	I_R	$V_R = 40\text{V}, T_A = 25^{\circ}\text{C}$	-	-	220	μA
		$V_R = 40\text{V}, T_A = 100^{\circ}\text{C}$	-	8.5	-	mA
		$V_R = 4\text{V}, T_A = 25^{\circ}\text{C}$	-	10	50	μA
		$V_R = 4\text{V}, T_A = 100^{\circ}\text{C}$	-	1	-	mA
		$V_R = 6\text{V}, T_A = 25^{\circ}\text{C}$ $V_R = 6\text{V}, T_A = 100^{\circ}\text{C}$	- -	15 1.5	75 -	μA mA
Total Capacitance	C_T	$V_R = 4\text{V}, f = 1\text{MHz}$	-	50	-	pF

Notes : 2. Short duration pulse test used to minimize self-heating effect.



SS1040L

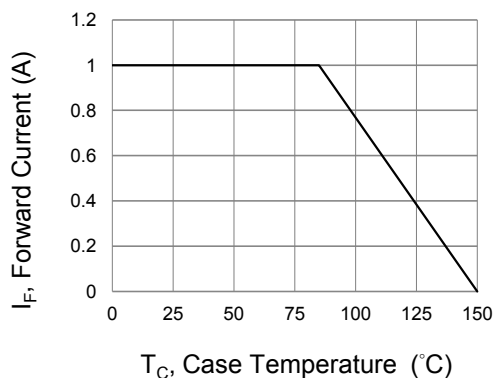


Fig.1 Forward Current Derating Curve

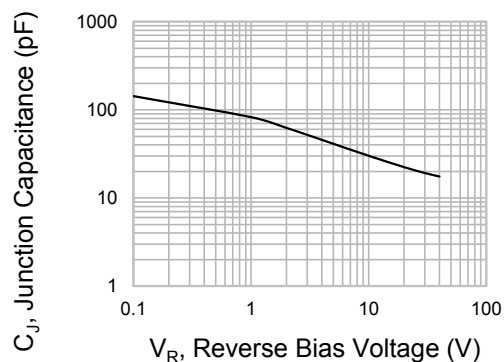


Fig.2 Typical Junction Capacitance

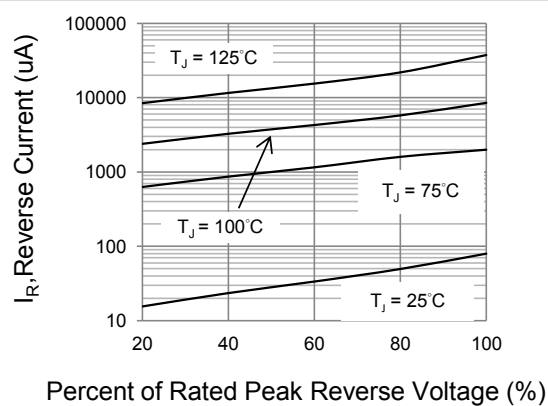


Fig.3 Typical Reverse Characteristics

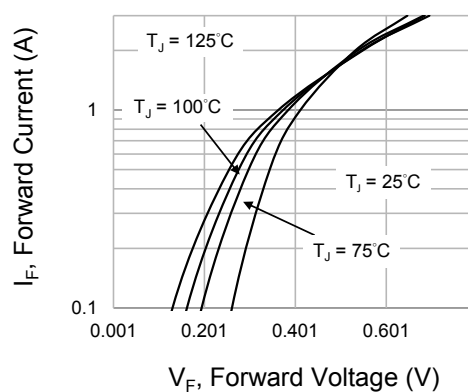


Fig.4 Typical Forward Characteristics

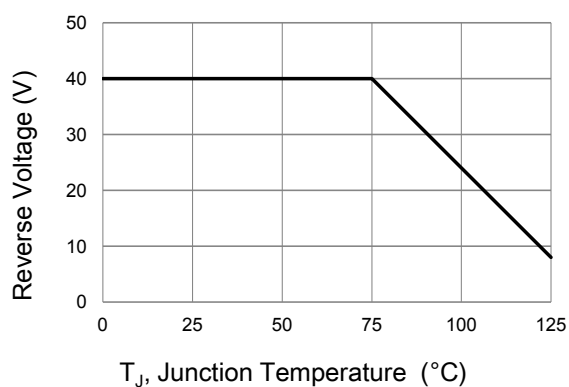


Fig.5 Operating Temperature Derating Curve

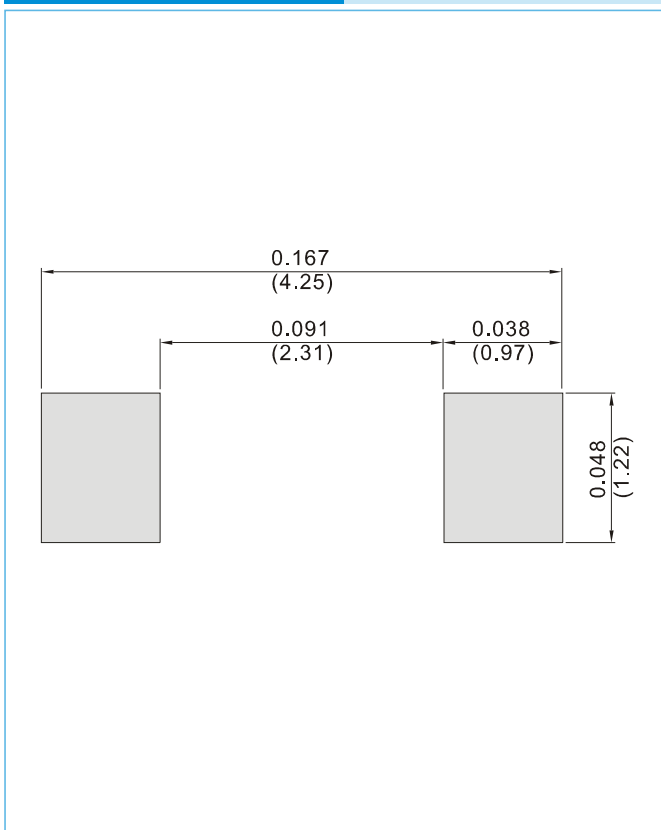


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MOUNTING PAD LAYOUT

SOD-123

Unit : inch(mm)



ORDER INFORMATION

- Packing information

T/R - 10K per 13" plastic Reel

T/R - 3K per 7" plastic Reel