



# RB501V-40

## SURFACE MOUNT SCHOTTKY DIODES

**VOLTAGE** 45 Volts    **CURRENT** 100 mA

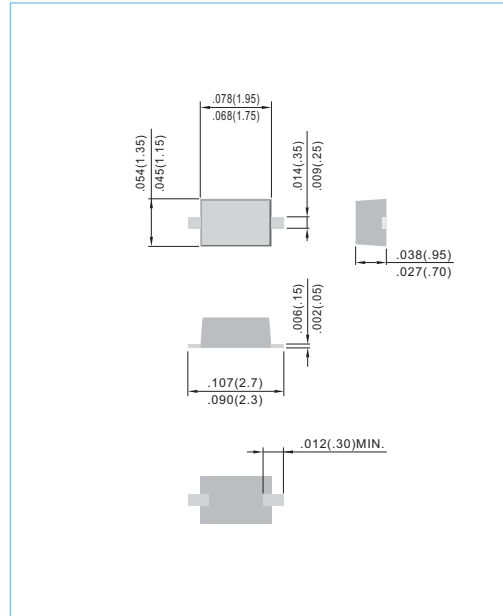
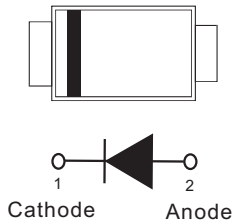
**SOD-323**    Unit: inch (mm)

### FEATURES

- Extremely Fast Switching Speed
- Very Low  $V_F$  : 0.32V (Typ) at  $I_F = 10\text{mA}$
- Surface mount package ideally suited for automatic insertion
- In compliance with EU RoHS 2002/95/EC directives

### MECHANICAL DATA

- Case: SOD-323, Plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Appox Weight : 0.0041 gram
- Marking : 501
- Polarity : Color band cathode



### ABSOLUTE RATINGS

Parameter	Symbol	Value	Units
Maximum Peak Reverse Voltage	$V_{RRM}$	45	V
Reverse DC Voltage	$V_R$	30	V
Maximum Forward Current	$I_{F(AV)}$	0.1	A
Maximum Forward Peak Current (60Hz-1 cycle)	$I_{FSM}$	1.0	A
Power Dissipation <sup>(1)</sup>	$P_{TOT}$	0.2	A
Peak Forward Surge Current at t=8.3ms	$I_{FSM}$	500	mA
Junction Temperature	$T_J$	-55 to + 125	°C
Storage Temperature	$T_{STG}$	-55 to + 125	°C

### THERMAL CHARACTERISTICS

Parameter	Symbol	Value	Units
Thermal Resistance, Junction to Ambient <sup>(1)</sup>	$R_{\theta JA}$	300	°C/W

1. FR-4 Board = 70 x 60 x 1mm. Minmum Pad Layout

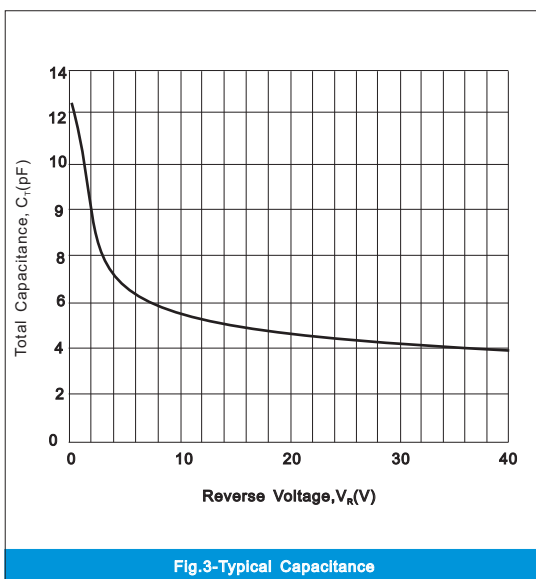
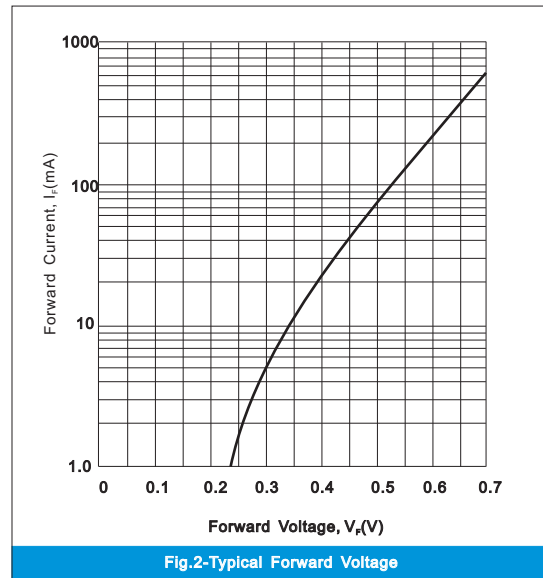
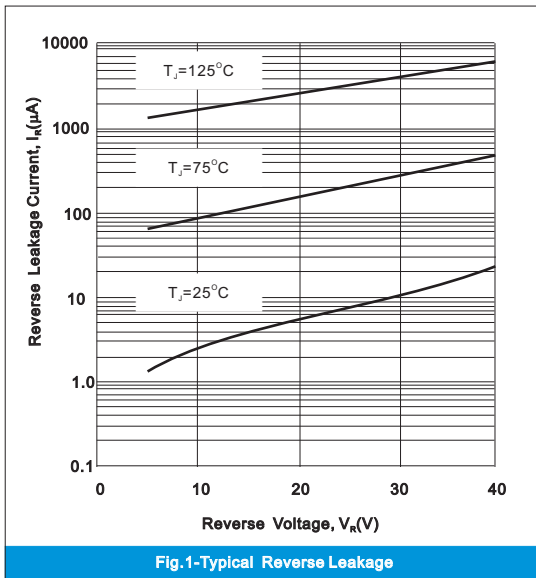


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## ELECTRICAL CHARACTERISTICS ( $T_J = 25^\circ\text{C}$ unless otherwise noted )

Parameter	Symbol	Test Condition	MIN.	TYP.	MAX.	Units
Reverse Leakage Current	$I_R$	$V_R=10\text{V}$	-	-	10	$\mu\text{A}$
Forward Voltage	$V_F$	$I_{F1}=10\text{mA}$ $I_{F2}=100\text{mA}$	-	-	0.34 0.55	V
Total Capacitance	$C_T$	$V_R=10\text{V}, F=1\text{MHz}$	-	6	-	pF

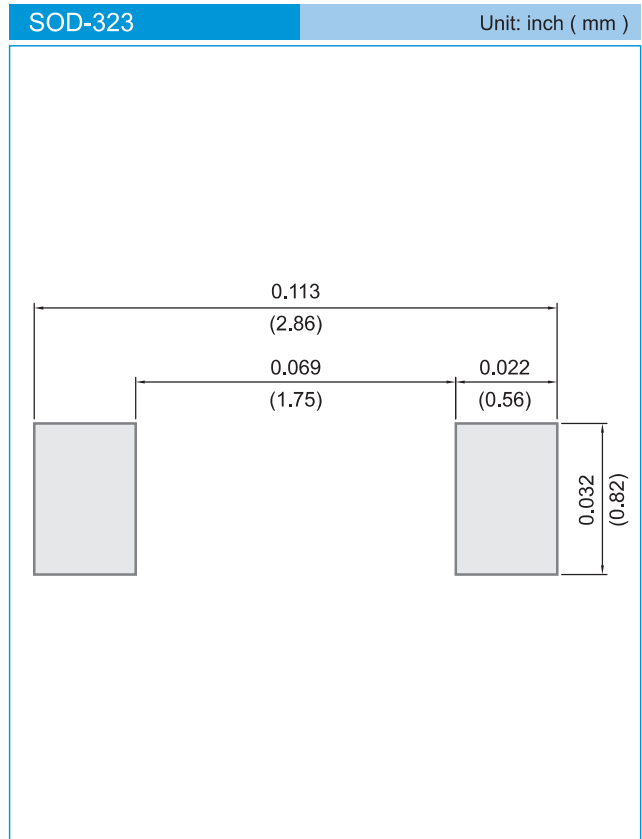
## ELECTRICAL CHARACTERISTICS CURVE





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## MOUNTING PAD LAYOUT



### ORDER INFORMATION

- Packing information  
T/R - 12K per 13" plastic Reel  
T/R - 5K per 7" plastic Reel

### LEGAL STATEMENT

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