

# RB500V-40

## SURFACE MOUNT SCHOTTKY DIODES

**VOLTAGE** 45 Volt **CURRENT** 100 mA

**SOD-323**

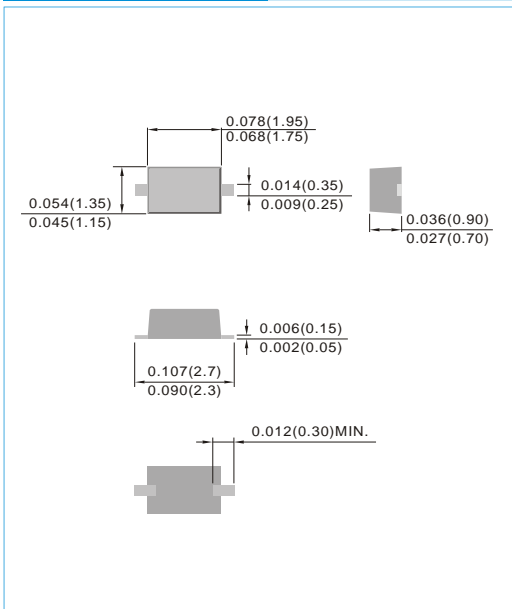
Unit : inch(mm)

### FEATURES

- Extremely Fast Switching Speed
- Very Low  $V_F$  : 0.37V (Typ) at  $I_F = 10\text{mA}$
- Surface mount package ideally suited for automatic insertion
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Green molding compound as per IEC61249 Std. . (Halogen Free)

### MECHANICAL DATA

- Case: SOD-323, Plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx Weight : 0.00014 ounces, 0.0041 grams
- Polarity : Color band cathode
- Marking : 500



### 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 at $t=8.3\text{ms}$	$I_{FSM}$	1	A
Power Dissipation (Note 1)	$P_{TOT}$	0.2	W
Junction Temperature	$T_J$	-55 to + 125	$^{\circ}\text{C}$
Storage Temperature	$T_{STG}$	-55 to + 125	$^{\circ}\text{C}$

### THERMAL CHARACTERISTICS

Parameter	Symbol	Value	Units
Thermal Resistance, Junction to Ambient (Note 1)	$R_{\theta JA}$	700	$^{\circ}\text{C/W}$

#### NOTE :

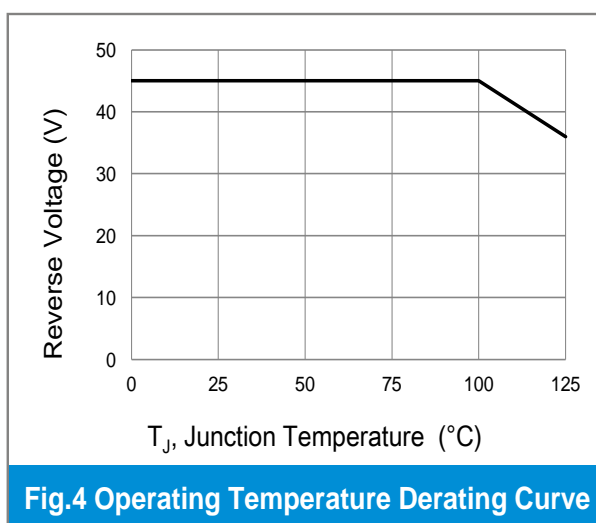
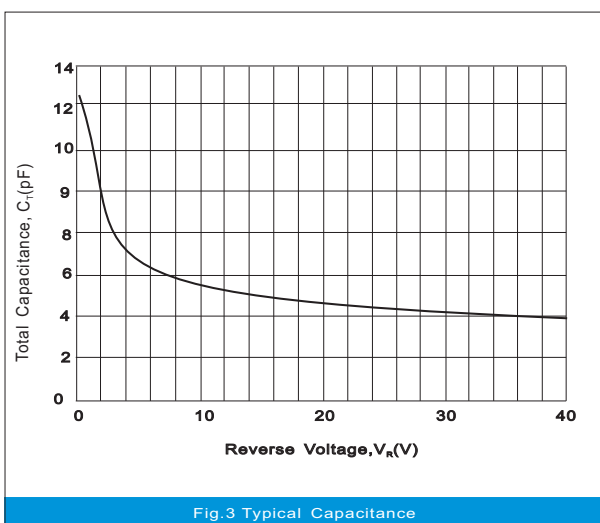
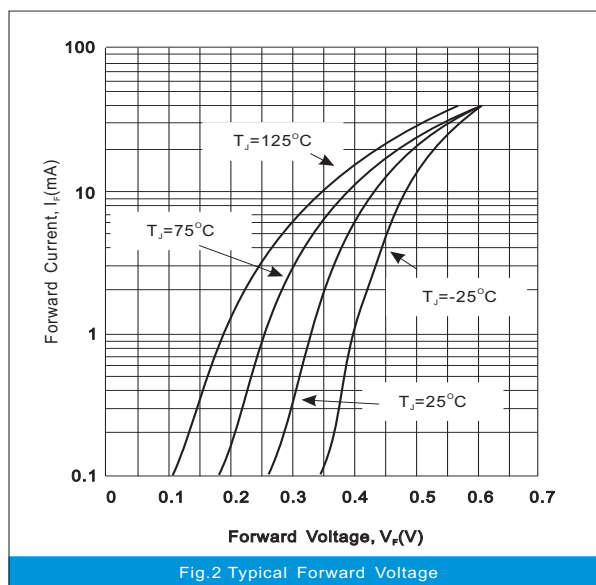
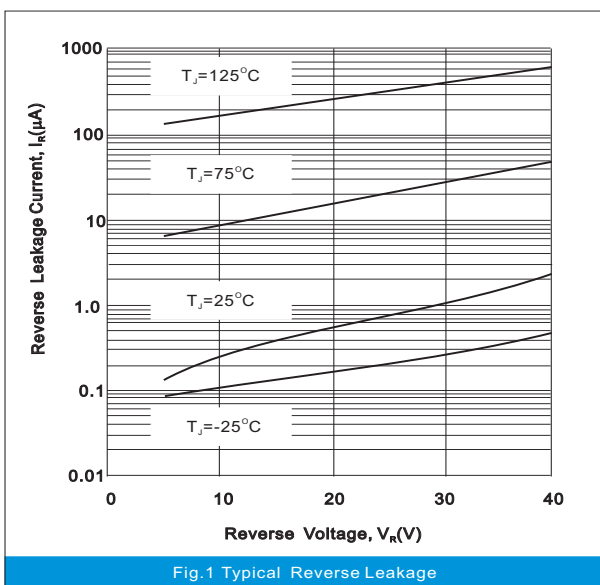
1. Mounted on an FR-4 PCB, single-sided copper, with 76.2x114.3 mm copper pad area.

# RB500V-40

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

Parameter	Symbol	Test Condition	MIN.	TYP.	MAX.	Units
Reverse Leakage Current	$I_R$	$V_R = 10\text{V}$	-	-	1	$\mu\text{A}$
Forward Voltage	$V_F$	$I_F = 10\text{mA}$	-	-	0.45	V
Total Capacitance	$C_T$	$V_R = 10\text{V}, F = 1\text{MHz}$	-	6	-	pF

## ELECTRICAL CHARACTERISTICS CURVE

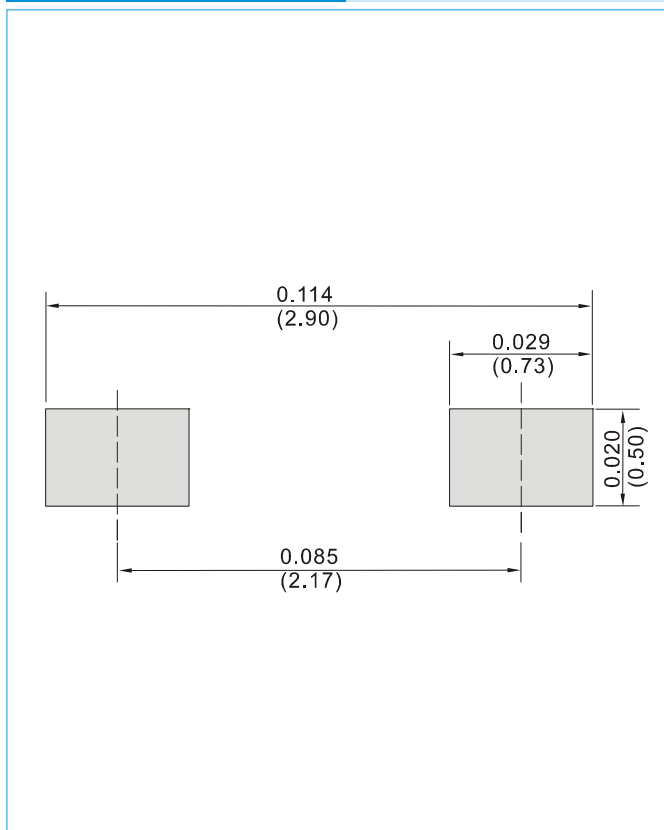


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## MOUNTING PAD LAYOUT

**SOD-323**

Unit : inch(mm)



## ORDER INFORMATION

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

## RB500V-40

### Part No\_packing code\_Version

RB500V-40\_R1\_00001

RB500V-40\_R2\_00001

For example :

**RB500V-40\_R2\_00001**

Part No.

Serial number

Version code means HF

Packing size code means 13"

Packing type means T/R

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)	<b>A</b>	N/A	<b>0</b>	HF	<b>0</b>	serial number
Tape and Reel (T/R)	<b>R</b>	7"	<b>1</b>	RoHS	<b>1</b>	serial number
Bulk Packing (B/P)	<b>B</b>	13"	<b>2</b>			
Tube Packing (T/P)	<b>T</b>	26mm	<b>X</b>			
Tape and Reel (Right Oriented) (TRR)	<b>S</b>	52mm	<b>Y</b>			
Tape and Reel (Left Oriented) (TRL)	<b>L</b>	PANASERT T/B CATHODE UP (PBCU)	<b>U</b>			
FORMING	<b>F</b>	PANASERT T/B CATHODE DOWN (PBCD)	<b>D</b>			



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