



# RB501V-40TW

## SURFACE MOUNT SCHOTTKY DIODES

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

### FEATURES

- Extremely Fast Switching Speed
- 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: SOT-363, Plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Apprx. Weight: 0.0002 ounces, 0.006 grams
- Marking : 140

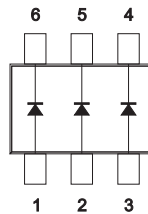
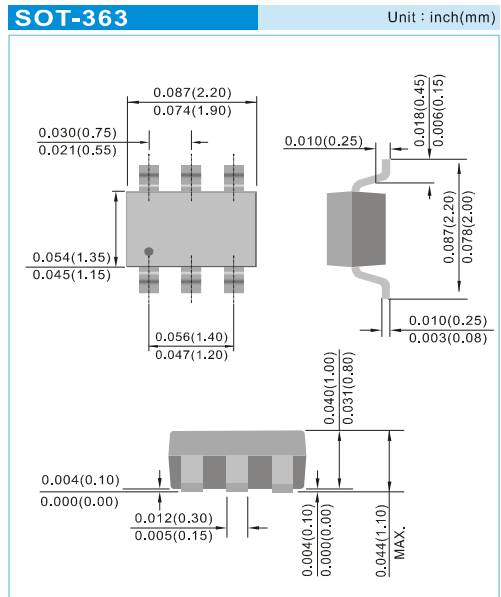


Fig.48



## 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-1cycle)	$I_{FSM}$	1	A
Total Power Dissipation <sup>(1)</sup>	$P_{TOT}$	0.2	W
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

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

## THERMAL CHARACTERISTICS

Parameter	Symbol	Value	Units
Thermal Resistance, Junction to Ambient <sup>(1)</sup>	$R_{\theta JA}$	550	°C/W

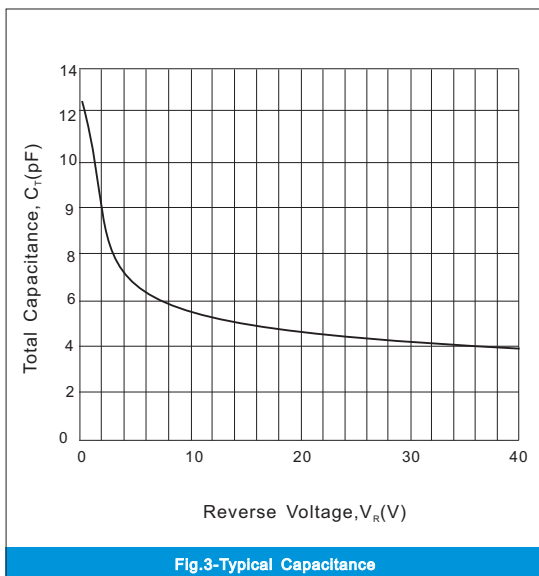
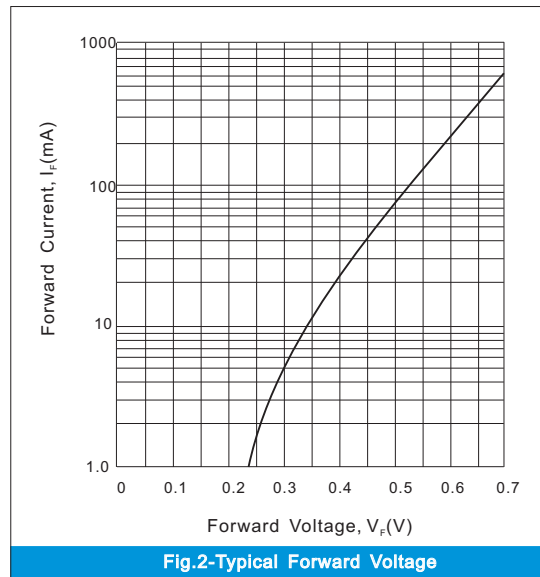
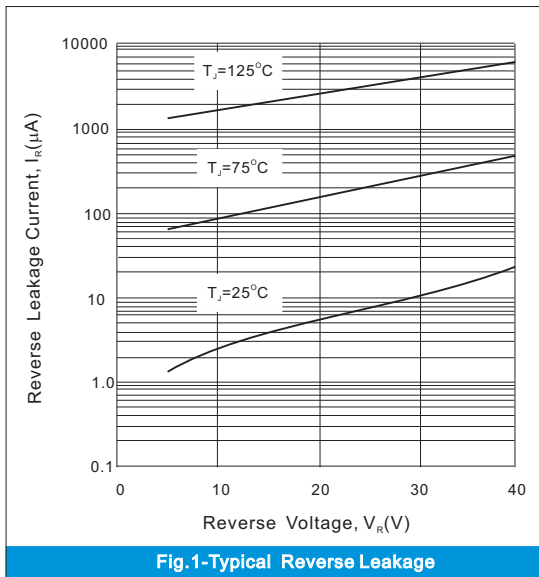


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## ELECTRICAL CHARACTERISTICS ( $T_J = 25^\circ\text{C}$ unless otherwise noted )

Parameter	Symbol	Test Condition	MIN.	TYP.	MAX.	Units
Reverse Leakage Current(each diode)	$I_R$	$V_R=10\text{V}$	-	-	10	$\mu\text{A}$
Forward Voltage(each diode)	$V_F$	$I_{F1}=10\text{mA}$ $I_{F2}=100\text{mA}$	-	0.26 -	0.34 0.55	V
Total Capacitance(each diode)	$C_T$	$V_R=10\text{V}, F=1\text{MHz}$	-	-	6	pF

## ELECTRICAL CHARACTERISTICS CURVE



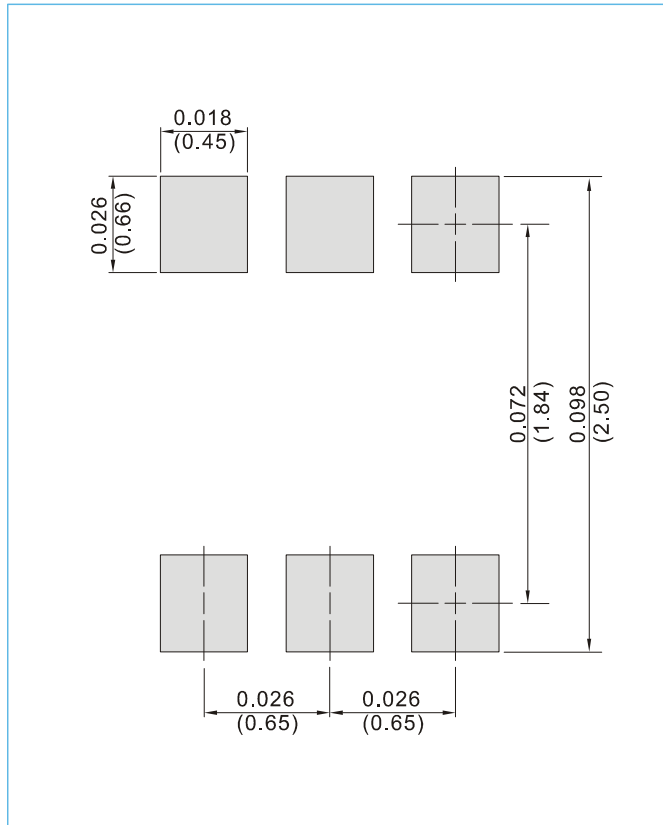


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## MOUNTING PAD LAYOUT

**SOT-363**

Unit : inch(mm)



## ORDER INFORMATION

- Packing information
  - T/R - 10K per 13" plastic Reel
  - T/R - 3K per 7" plastic Reel



# RB501V-40TW

## Part No\_packing code\_Version

RB501V-40TW\_R1\_00001

RB501V-40TW\_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)	<b>A</b>	N/A	<b>0</b>	<b>HF</b>	<b>0</b>	serial number
Tape and Reel (T/R)	<b>R</b>	7"	<b>1</b>	<b>RoHS</b>	<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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