



# BAW56TB,BAV70TB,BAV99TB,BAL99TB

## SURFACE MOUNT SWITCHING DIODES

<b>VOLTAGE</b>	100Volt	<b>POWER</b>	200mWatt
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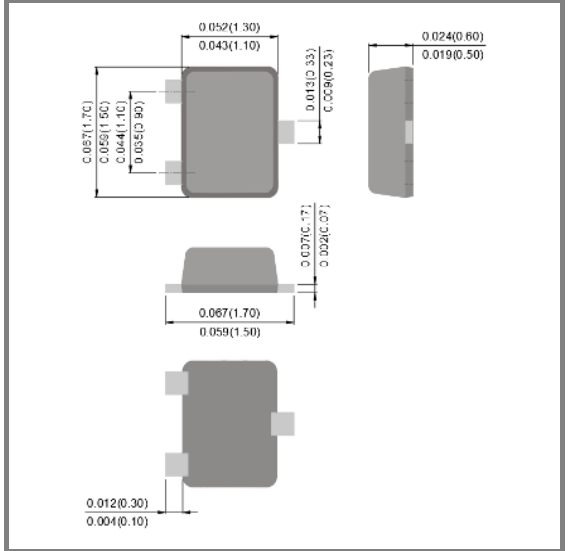
<b>SOT-523 Dimension</b>	<b>Unit: inch(mm)</b>
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### FEATURES

- Fast switching speed.
- Surface mount package Ideally Suited for Automatic insertion
- Electrically Identical to Standard JEDEC
- High Conductance
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

### MECHANICAL DATA

- Case : SOT-523, Plastic
- Terminals : Solderable per MIL-STD-750, Method 2026
- Approx. Weight : 0.002 grams



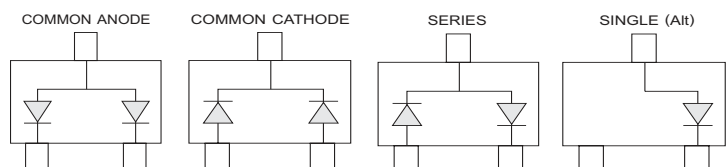
## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. For capacitive load, derate current by 20%.

PARAMETER	SYMBOL	BAW56TB	BAV70TB	BAV99TB	BAL99TB	UNITS
Marking Code		LB	LC	LD	LF	
Reverse Voltage	V <sub>R</sub>	75				V
Peak Reverse Voltage	V <sub>RM</sub>	100				V
Rectified Current (Average), Half Wave Rectification with Resistive Load and f >=50 Hz	I <sub>O</sub>	150		75		mA
Peak Forward Surge Current,1.0us	I <sub>FSM</sub>	4.0				A
Power Dissipation Derate Above 25°C	P <sub>TOT</sub>	200				mW
Maximum Forward Voltage	V <sub>F</sub>	0.715 @ I <sub>F</sub> =0.001A 0.855 @ I <sub>F</sub> =0.01A 1.0 @ I <sub>F</sub> =0.05A 1.25 @ I <sub>F</sub> =0.15A				V
Maximum DC Reverse Current at 25V 75V	I <sub>R</sub>	0.03 2.5				∞A
Maximum Junction Capacitance( Notes 1)	C <sub>J</sub>	1.5				pF
Maximum Reverse Recovery Time (Notes 2)	T <sub>RR</sub>	4.0				ns
Typical Maximum Thermal Resistance	R <sub>θJA</sub>	833				°C / W
Junction Temperature Range	T <sub>J</sub>	-55 to +150				°C
Circuit Figure		Common Anode	Common Cathode	Series	Single(Alt)	

**NOTE:**

1. C<sub>J</sub> at V<sub>R</sub>=0, f=1MHZ
2. From I<sub>F</sub>=10mA to I<sub>R</sub>=1mA, V<sub>R</sub>=6Volts, R<sub>L</sub>=100Ω





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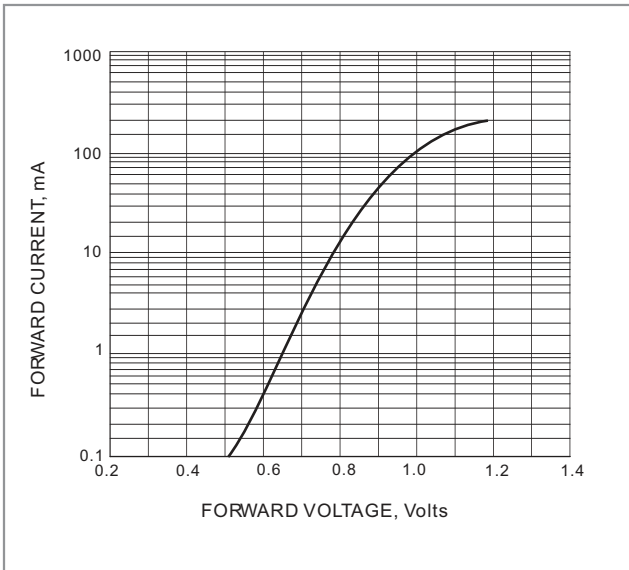


FIG. 1-TYPICAL FORWARD CHARACTERISTIC

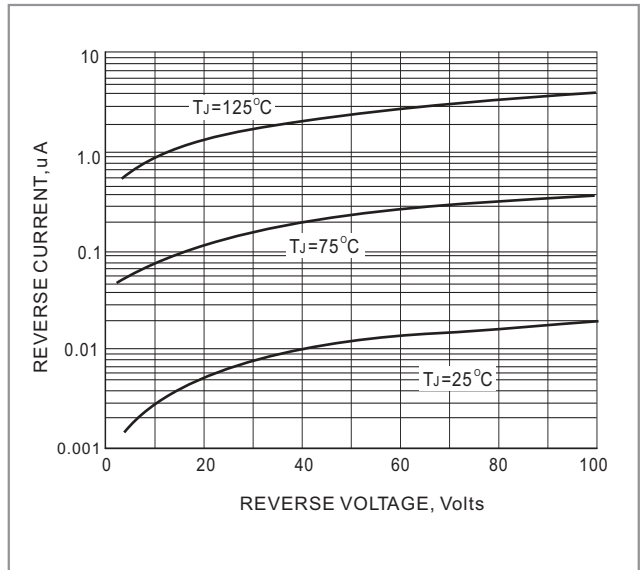


FIG. 2-TYPICAL REVERSE CHARACTERISTICS

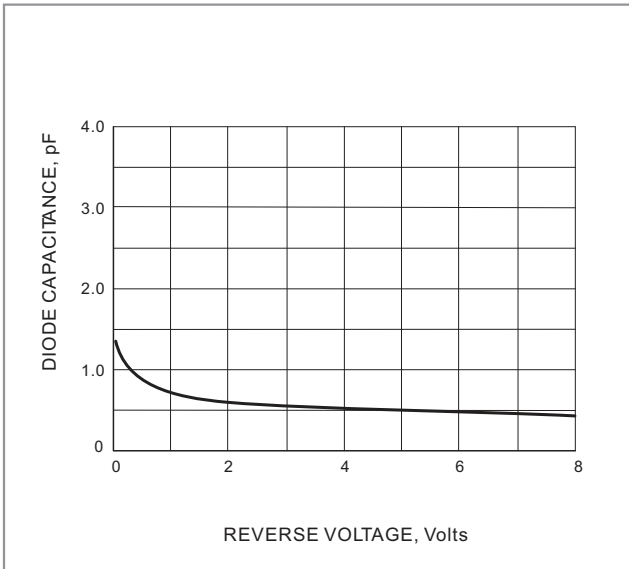


FIG. 3 TYPICAL JUNCTION CAPACITANCE

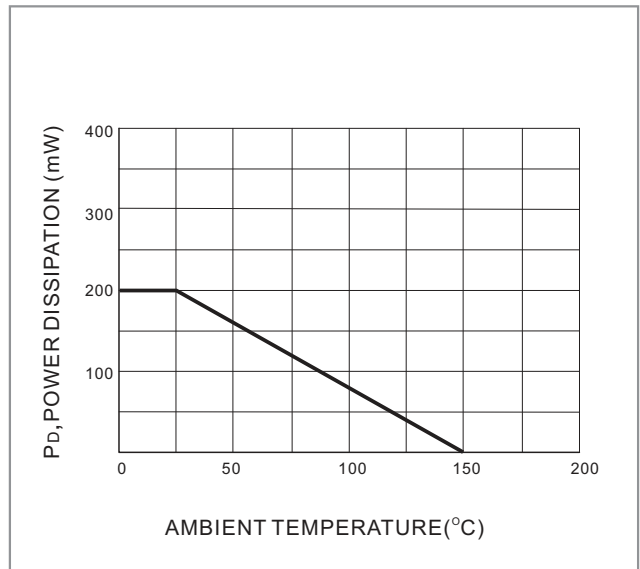
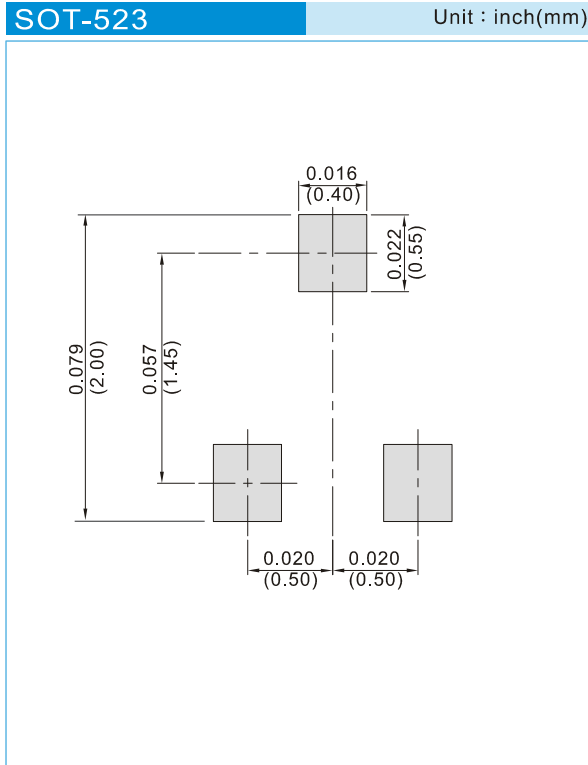


FIG. 4 POWER DERATING CURVE



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## MOUNTING PAD LAYOUT



## ORDER INFORMATION

- Packing information  
T/R - 4K per 7" plastic Reel



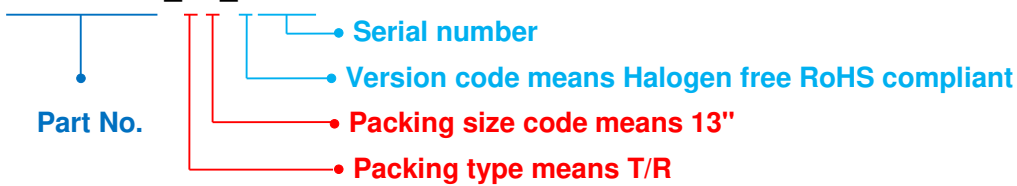
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Part No.\_packing code\_Version

BAW56TB\_R1\_00001

For example :

RB500V-40\_R2\_00001



Packing Code <b>XX</b>				Version Code <b>X</b>		Serial number <b>XXXX</b>
Packing type	1 <sup>st</sup> Code	Packing size code	2 <sup>nd</sup> Code	HSF Level	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>	Halogen free RoHS compliant	<b>0</b>	serial number
Tape and Reel (T/R)	<b>R</b>	7"	<b>1</b>	RoHS compliant	<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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