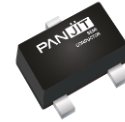


# BAW56TB-AU,BAV70TB-AU,BAV99TB-AU,BAL99TB-AU

## SURFACE MOUNT SWITCHING DIODES

**VOLTAGE** 100Volt **POWER** 200mWatt

**SOT-523**



### FEATURES

- Fast switching speed.
- Surface mount package Ideally Suited for Automatic insertion
- Electrically Identical to Standard JEDEC
- High Conductance
- AEC-Q101 qualified
- 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

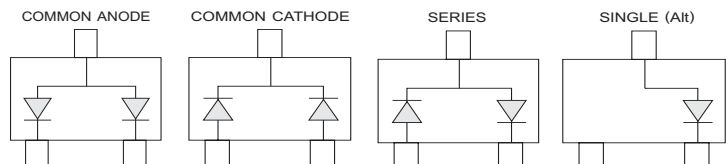
## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

PARAMETER	SYMBOL	BAW56TB-AU	BAV70TB-AU	BAV99TB-AU	BAL99TB-AU	UNITS
Reverse Voltage	$V_R$	75				V
Peak Reverse Voltage	$V_{RM}$	100				V
Rectified Current (Average), Half Wave Rectification with Resistive Load and $f \geq 50\text{Hz}$	$I_o$	150				mA
Peak Forward Surge Current, 1 us	$I_{FSM}$	4				A
Power Dissipation Derate Above 25 °C	$P_{TOT}$	200				mW
Maximum Forward Voltage	$V_F$	0.715 @ $I_F = 0.001\text{A}$ 0.855 @ $I_F = 0.01\text{A}$ 1.0 @ $I_F = 0.05\text{A}$ 1.25 @ $I_F = 0.15\text{A}$				V
Maximum DC Reverse Current at 25V 75V	$I_R$	0.03 2.5				$\mu\text{A}$
Maximum Junction Capacitance ( Notes 1 )	$C_J$	1.5				pF
Maximum Reverse Recovery Time ( Notes 2 )	$T_{RR}$	4				ns
Typical Maximum Thermal Resistance	$R_{\theta JA}$	833				°C / W
Junction Temperature Range	$T_J$	- 55 to + 150				°C
Circuit Figure		Common Anode	Common Cathode	Series	Single (Alt)	

**NOTE:**

1.  $C_J$  at  $V_R=0$ ,  $f=1\text{MHZ}$
2. From  $I_F=10\text{mA}$  to  $I_R=1\text{mA}$ ,  $V_R=6\text{Volts}$ ,  $R_L=100\Omega$



**BAW56TB-AU,BAV70TB-AU,BAV99TB-AU,BAL99TB-AU**

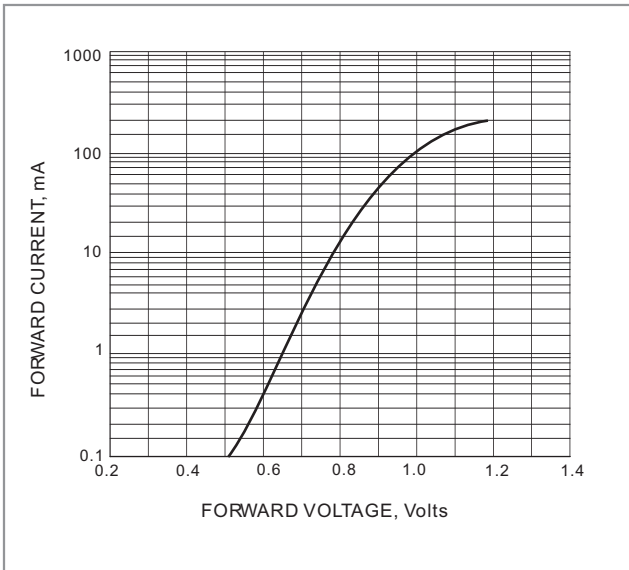


FIG. 1-TYPICAL FORWARD CHARACTERISTIC

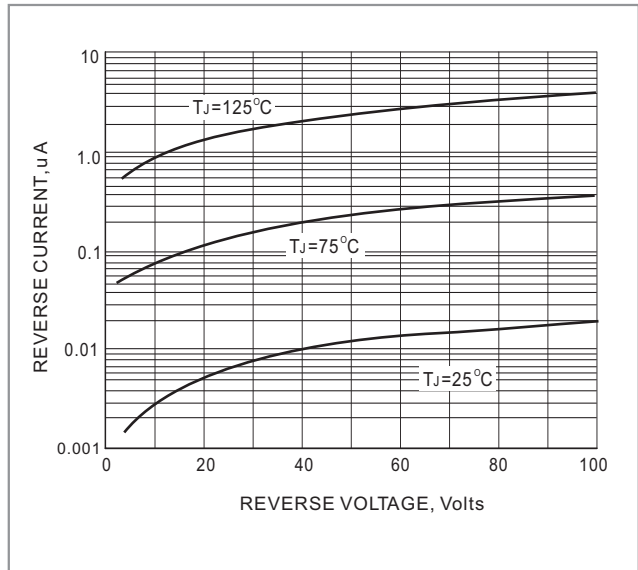


FIG. 2-TYPICAL REVERSE CHARACTERISTICS

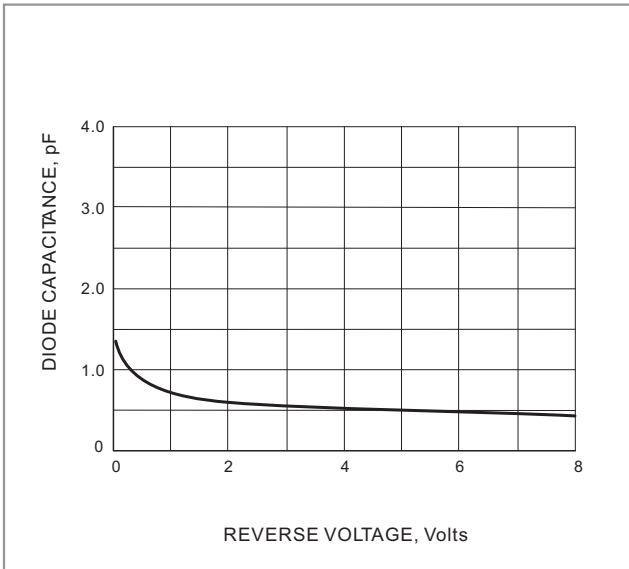


FIG. 3 TYPICAL JUNCTION CAPACITANCE

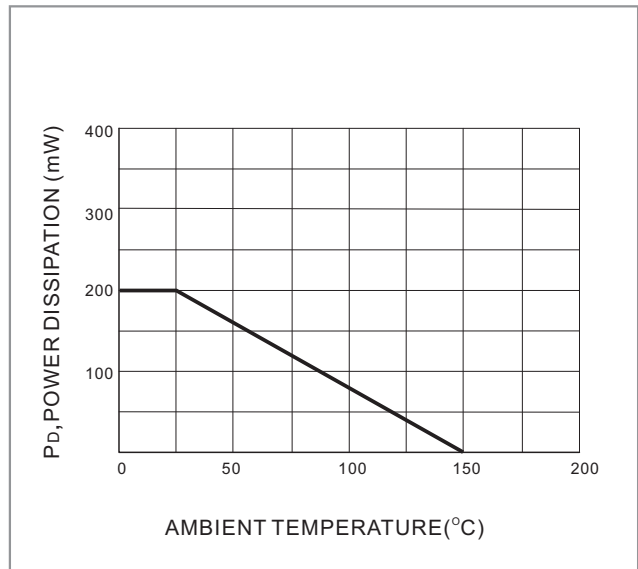


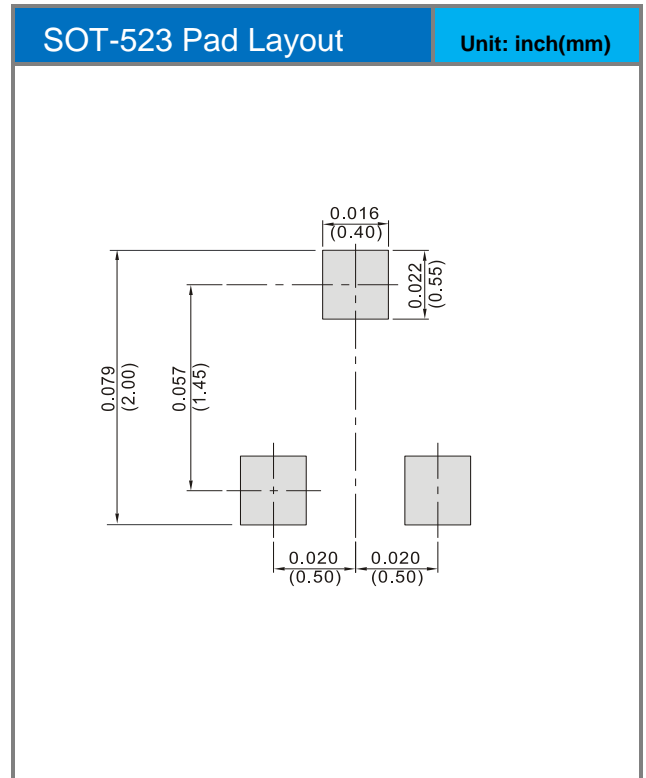
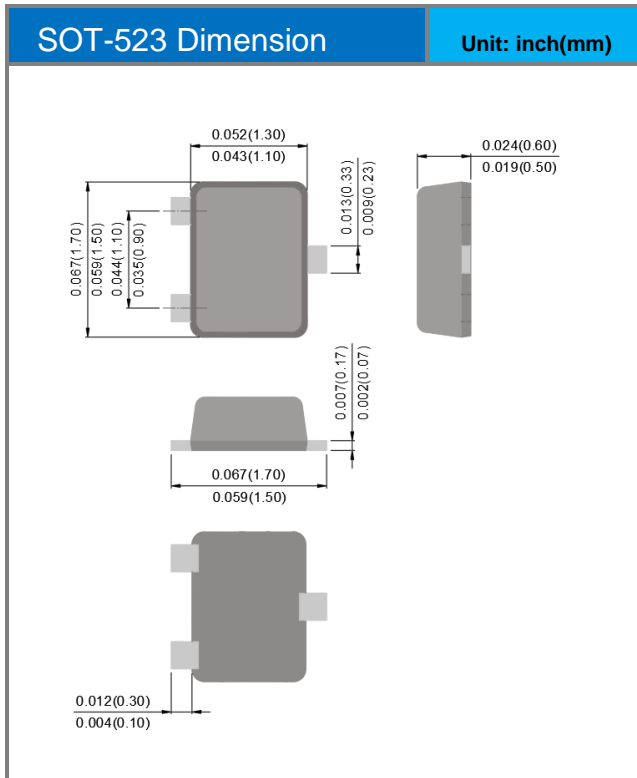
FIG. 4 POWER DERATING CURVE

## BAW56TB-AU,BAV70TB-AU,BAV99TB-AU,BAL99TB-AU

### Product and Packing Information

Part No.	Package Type	Packing Type	Marking
BAW56TB-AU	SOT-523	4K pcs / 7" reel	LB
BAV70TB-AU	SOT-523	4K pcs / 7" reel	LC
BAV99TB-AU	SOT-523	4K pcs / 7" reel	LD
BAL99TB-AU	SOT-523	4K pcs / 7" reel	LF

### Packaging Information & Mounting Pad Layout



## **BAW56TB-AU,BAV70TB-AU,BAV99TB-AU,BAL99TB-AU**

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