



BAS16TW/BAW56DW/BAV70DW/BAV99S

SURFACE MOUNT SWITCHING DIODES

VOLTAGE 100 Volts **POWER** 200mWatts

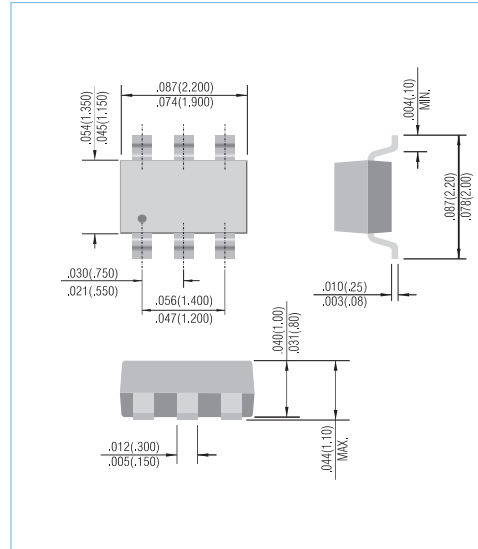
SOT-363 Unit: inch (mm)

FEATURES

- Fast switching speed.
- Surface mount package Ideally Suited for Automatic insertion
- High Conductance
- In compliance with EU RoHS 2002/95/EC directives

MECHANICAL DATA

- Case: SOT-363, Plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Weight: approximately 0.006gram



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

PARAMETER	SYMBOL	BAS16TW	BAW56DW	BAV70DW	BAV99S	UNITS
Marking Code	-	16T	JC	JA	JB	-
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, 1.0 μs	I_{FSM}	4.0				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				μA
Maximum Junction Capacitance (Note 1)	C_J	1.5				pF
Maximum Reverse Recovery Time (Note 2)	T_{RR}	4.0				ns
Typical Thermal Resistance	$R_{\theta JA}$	625				°C / W
Junction Temperature Range	T_J	-55 to +150				°C
Circuit Figure		Fig.48	Fig.51	Fig.52	Fig.32	

NOTE : 1. Reverse Bias Voltage = 0. $f=1\text{MHz}$
2. $I_F=10\text{mA}$ to $I_R=1\text{mA}$. $V_R=6\text{V}$. Load=100 Ω



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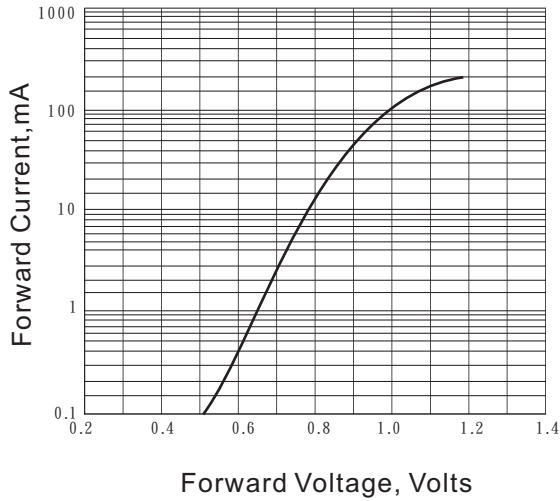


FIG.1-TYPICAL FORWARD CHARACTERISTICS

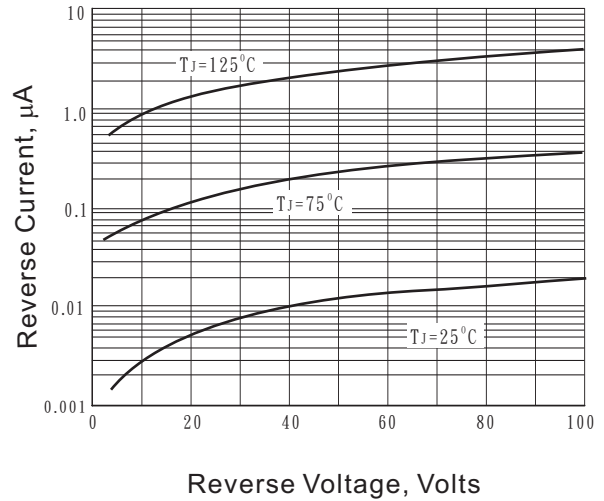


FIG.2-TYPICAL REVERSE CHARACTERISTICS

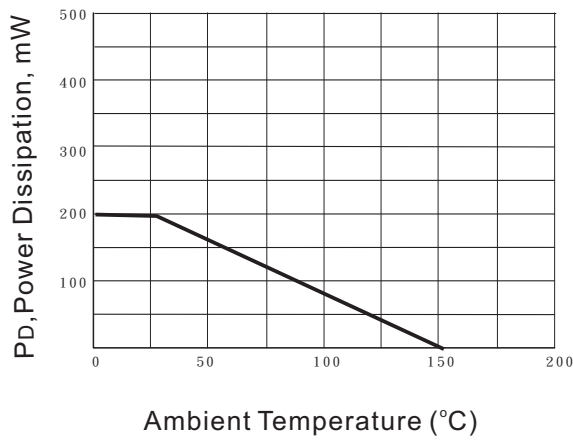


FIG.3-POWER DERATING CURVE

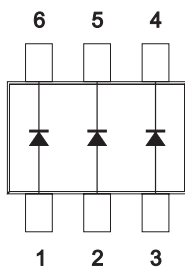


Fig.48

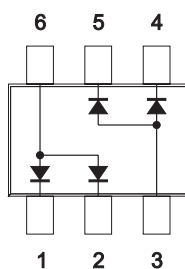


Fig.51

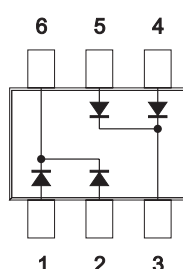


Fig.52

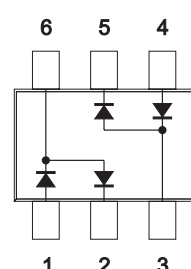
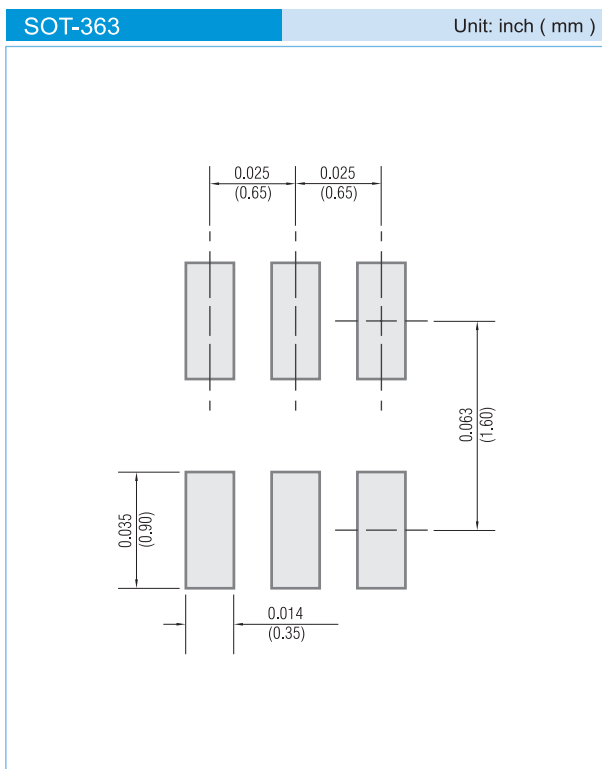


Fig.32



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MOUNTING PAD LAYOUT



ORDER INFORMATION

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

LEGAL STATEMENT

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