



# BAS16TW/BAW56DW/BAV70DW/BAV99S

## SURFACE MOUNT SWITCHING DIODES

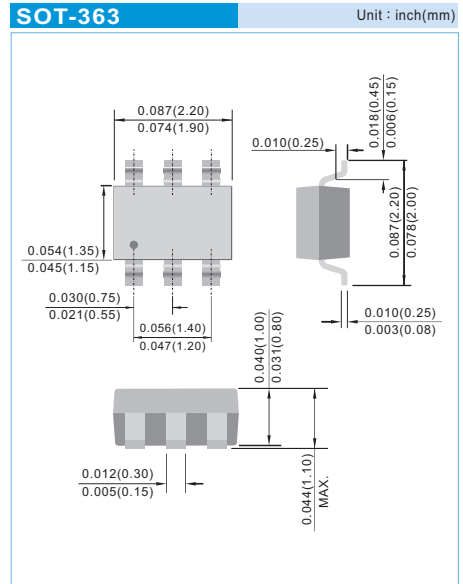
**VOLTAGE** 100 Volts **POWER** 200mWatts

### FEATURES

- Fast switching speed.
- Surface mount package Ideally Suited for Automatic insertion
- High Conductance
- Solderable per MIL-STD-750, Method 2026

### MECHANICAL DATA

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



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

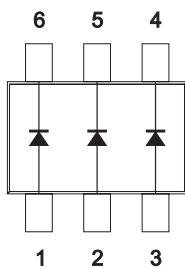
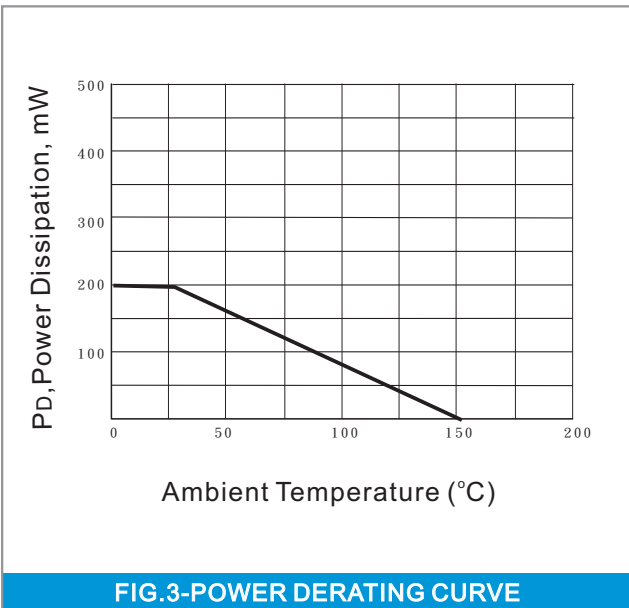
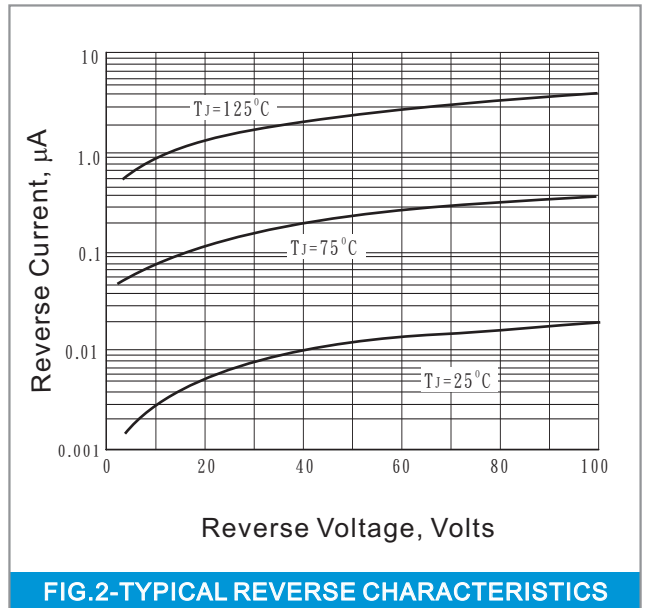
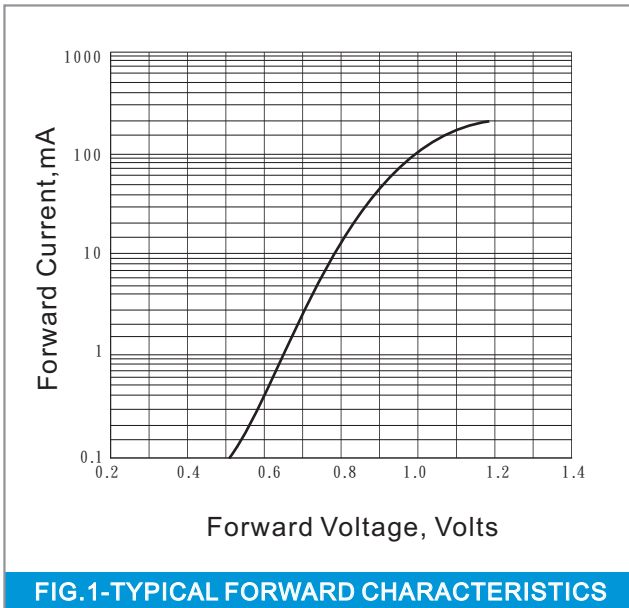
Ratings at 25°C ambient temperature unless otherwise specified. For capacitive load, derate current by 20%.

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 $\mu\text{s}$	$I_{FSM}$	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				$\mu\text{A}$
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	

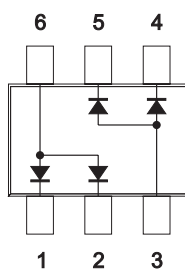
NOTE : 1. Reverse Bias Voltage = 0.  $f=1\text{MHz}$   
2.  $I_F=10\text{mA}$  to  $I_R=1\text{mA}$ .  $V_R=6\text{V}$ . Load=100 $\Omega$



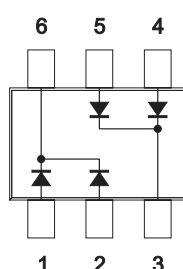
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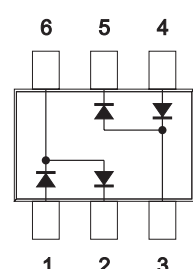
**Fig.48**



**Fig.51**



**Fig.52**

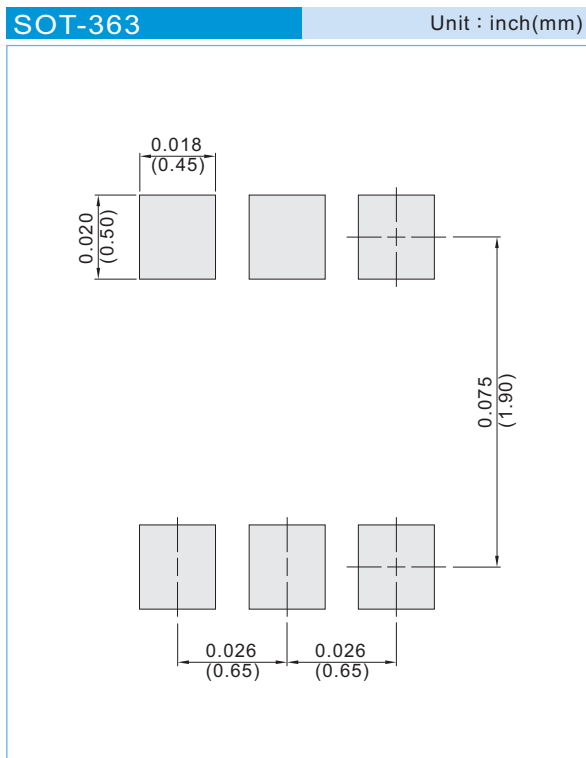


**Fig.32**



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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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