

# BAS16TW/BAW56DW/BAV70DW/BAV99S

## SURFACE MOUNT SWITCHING DIODES

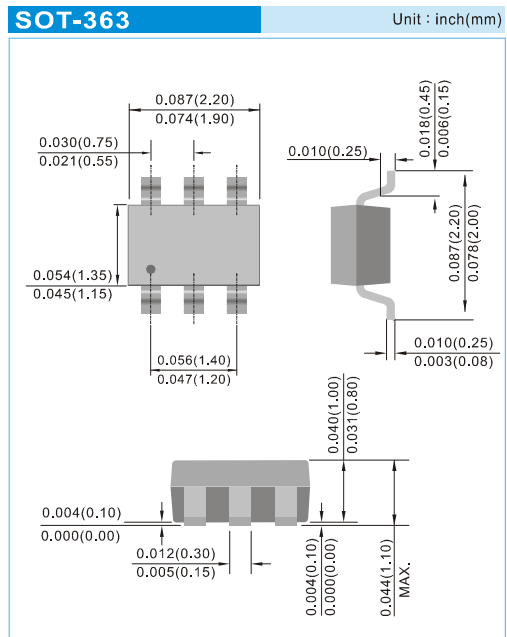
<b>VOLTAGE</b>	<b>100 Volt</b>	<b>POWER</b>	<b>200mWatt</b>
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### FEATURES

- Fast switching speed.
- Surface mount package Ideally Suited for Automatic insertion
- High Conductance
- 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
- Approx. Weight: 0.0002 ounces, 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 $\mu\text{s}$	$I_{FSM}$	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@ $I_F=0.05\text{A}$ 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				ns
Typical Thermal Resistance	$R_{\theta JA}$	625				°C / W
Operating Junction and Storage Temperature Range	$T_J, T_{STG}$	-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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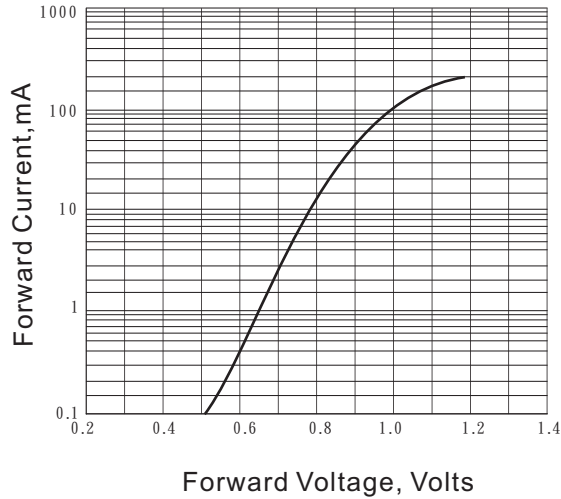


FIG.1-TYPICAL FORWARD CHARACTERISTICS

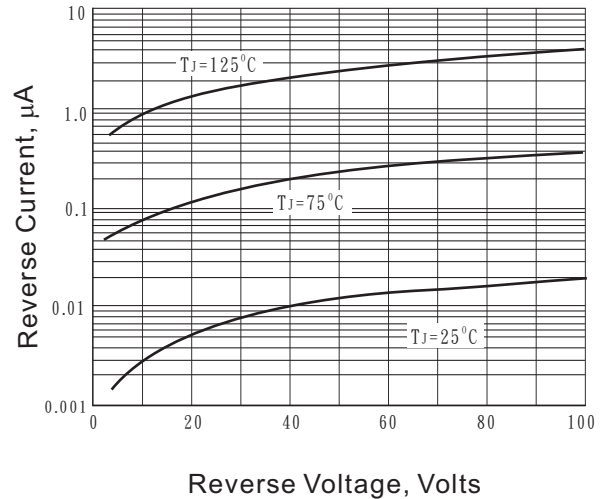


FIG.2-TYPICAL REVERSE CHARACTERISTICS

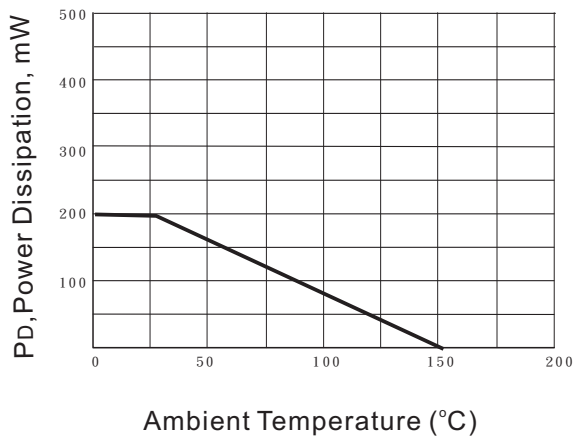


FIG.3-POWER DERATING CURVE

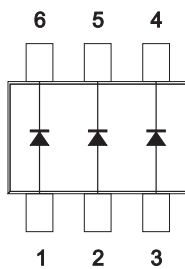


Fig.48

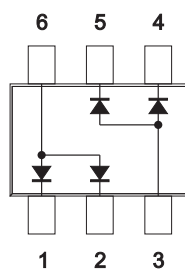


Fig.51

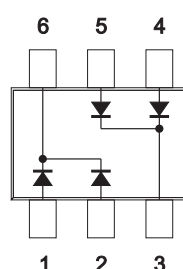


Fig.52

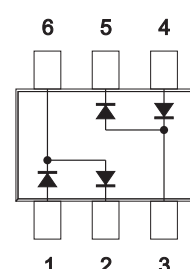
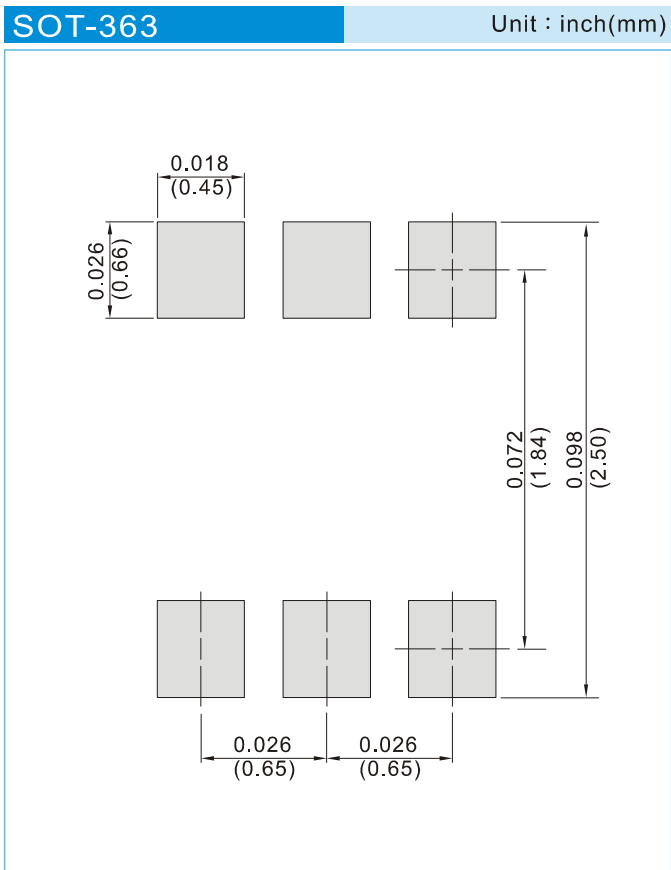


Fig.32

## BAS16TW/BAW56DW/BAV70DW/BAV99S

### MOUNTING PAD LAYOUT



### ORDER INFORMATION

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

## BAS16TW/BAW56DW/BAV70DW/BAV99S

### Part No\_packing code\_Version

BAS16TW\_R1\_00001

BAS16TW\_R2\_00001

BAS16TW\_S1\_00001

For example :

**RB500V-40\_R2\_00001**

Part No.

Serial number

Version code means HF

Packing size code means 13"

Packing type means T/R

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>	HF	<b>0</b>	serial number
Tape and Reel (T/R)	<b>R</b>	7"	<b>1</b>	RoHS	<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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