



BAS16TW/BAW56DW/BAV70DW/BAV99S

SURFACE MOUNT SWITCHING DIODES

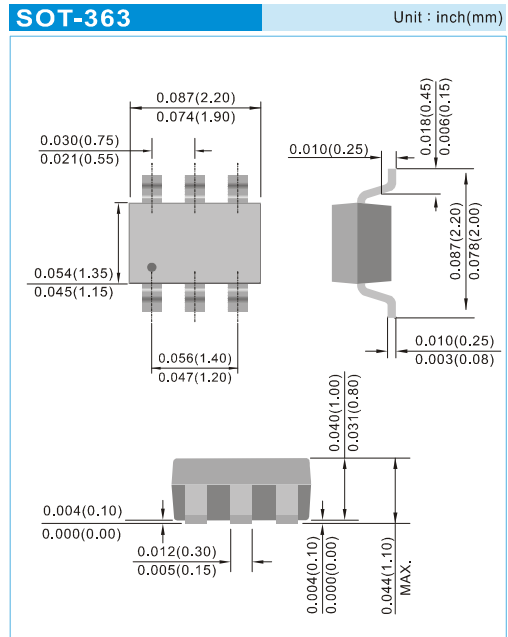
VOLTAGE 100 Volt **POWER** 200mWatt

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 μs	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				μA
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 Ω



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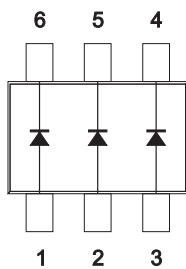
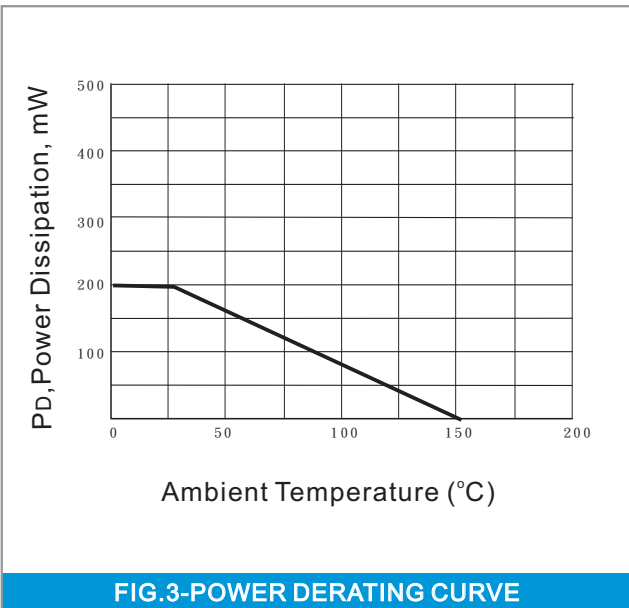
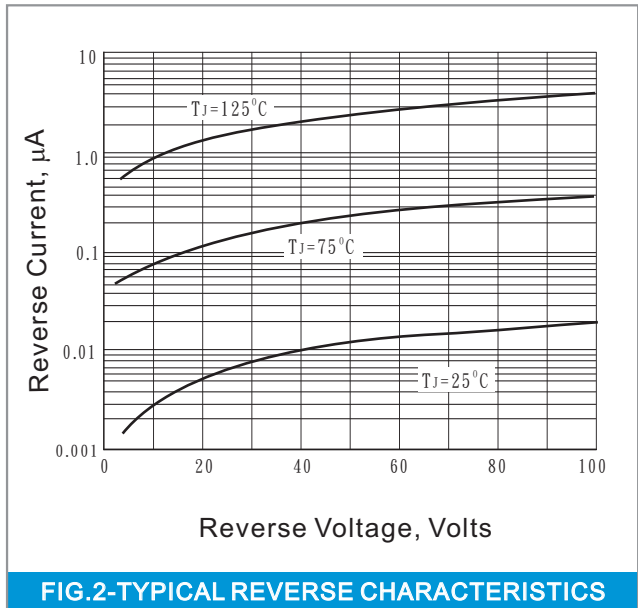
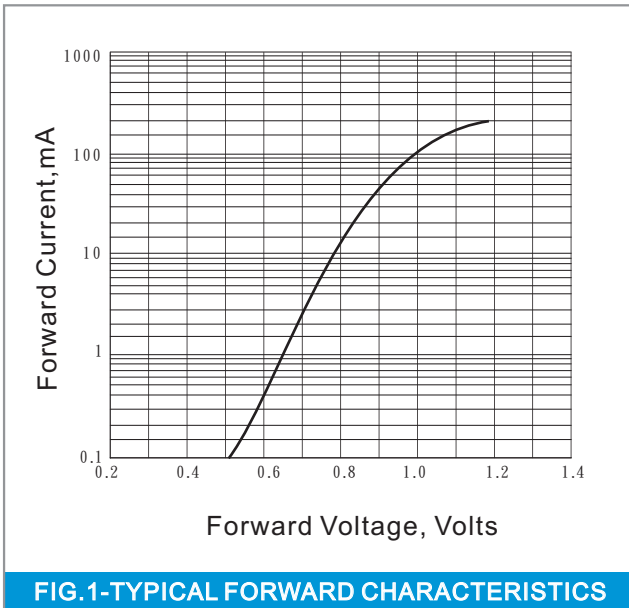


Fig.48

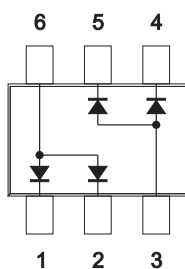


Fig.51

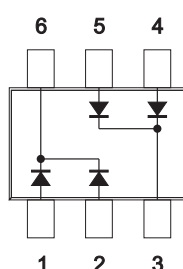


Fig.52

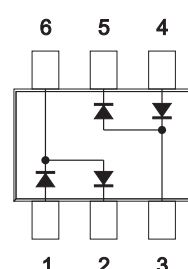
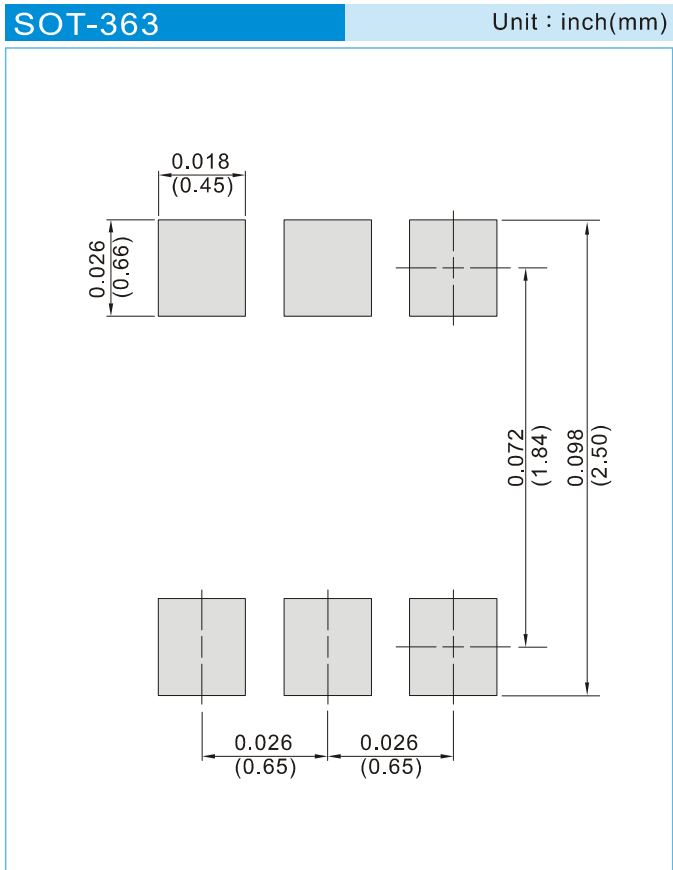


Fig.32



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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



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Part No_packing code_Version

BAS16TW_R1_00001

BAS16TW_R2_00001

BAS16TW_S1_00001

For example :

RB500V-40_R2_00001



Packing Code XX				Version Code XXXXX		
Packing type	1 st Code	Packing size code	2 nd Code	HF or RoHS	1 st Code	2 nd ~5 th Code
Tape and Ammunition Box (T/B)	A	N/A	0	HF	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number
Bulk Packing (B/P)	B	13"	2			
Tube Packing (T/P)	T	26mm	X			
Tape and Reel (Right Oriented) (TRR)	S	52mm	Y			
Tape and Reel (Left Oriented) (TRL)	L	PANASERT T/B CATHODE UP (PBCU)	U			
FORMING	F	PANASERT T/B CATHODE DOWN (PBCD)	D			