



BAV199STB6

SURFACE MOUNT, LOW LEAKAGE SWITCHING DIODES ARRAY

VOLTAGE 100 Volts

POWER 200mWatts

SOT-563

Unit: inch (mm)

FEATURES

- Two isolated diode pairs for significant board space savings
- Surface mount package ideally suited for automatic insertion
- Very low leakage current. 5nA typical at $V_R=75V$.
- Low capacitance. 2pF max at $V_R=0V$, $f=1MHz$
- Lead free in comply with EU RoHS 2002/95/EC directives.
- Green molding compound as per IEC61249 Std. . (Halogen Free)

MECHANICAL DATA

- Case: SOT-563 plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx weight: 0.0026 grams
- Marking: TF

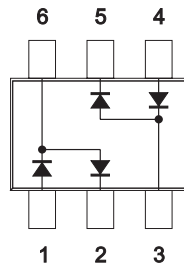
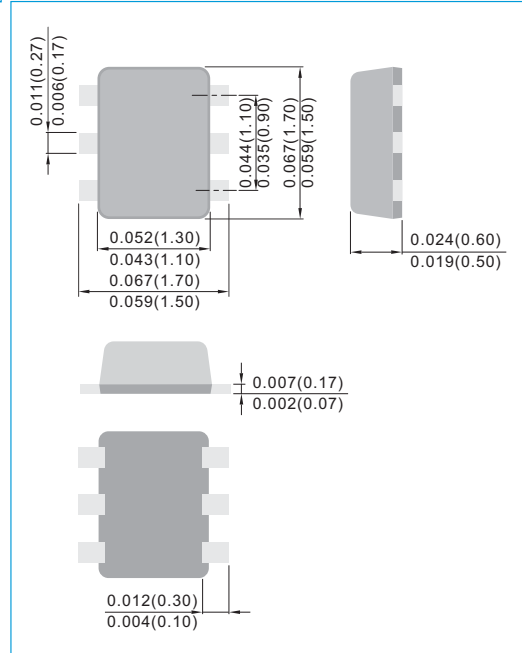


Fig.32



ABSOLUTE RATINGS (each diode)

Parameter	Symbol	Value	Units
Maximum Reverse Voltage	V_R	100	V
Peak Reverse Voltage	V_{RM}	100	V
Continuous Forward Current	I_F	0.2	A
Non-repetitive Peak Forward Surge Current at $t=1.0\mu s$	I_{FSM}	2.0	A

THERMAL CHARACTERISTICS

Parameter	Symbol	Value	Units
Power Dissipation (Note 1)	P_{TOT}	200	mW
Thermal Resistance, Junction to Ambient (Note 1)	$R_{\theta JA}$	625	$^{\circ}C/W$
Junction Temperature	T_J	-55 to 150	$^{\circ}C$
Storage Temperature	T_{STG}	-55 to 150	$^{\circ}C$

NOTE:

1. FR-4 Board = 70 x 60 x 1mm.



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ELECTRICAL CHARACTERISTICS (each diode) ($T_A=25^\circ\text{C}$, unless otherwise noted)

PARAMETER	Symbol	Test Condition	MIN.	TYP.	MAX.	Units
Reverse Breakdown Voltage	$V_{(BR)}$	$I_R=100\ \mu\text{A}$			100	V
Reverse Current	I_R	$V_R=75\ \text{V}$ $V_R=75\ \text{V}, T_J=150\ ^\circ\text{C}$			5 80	nA
Forward Voltage	V_F	$I_F=1\text{mA}$ $I_F=10\text{mA}$ $I_F=50\text{mA}$ $I_F=150\text{mA}$			0.9 1.0 1.1 1.25	V
Total Capacitance	C_T	$V_R=0\ \text{V}, f=1\text{MHz}$			2.0	pF
Reverse Recovery Time	T_{RR}	$I_F=I_R=10\text{mA}, R_L=100\ \Omega$			3.0	us

CHARACTERISTIC CURVES (each diode)

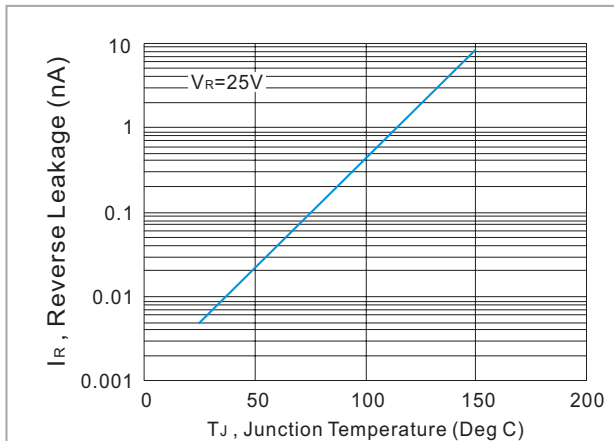


Figure 1. Reverse Leakage vs. Junction Temperature

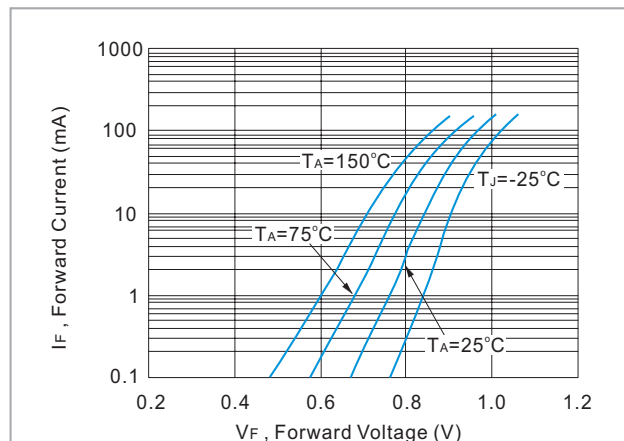


Figure 2. Forward Current vs. Forward Voltage

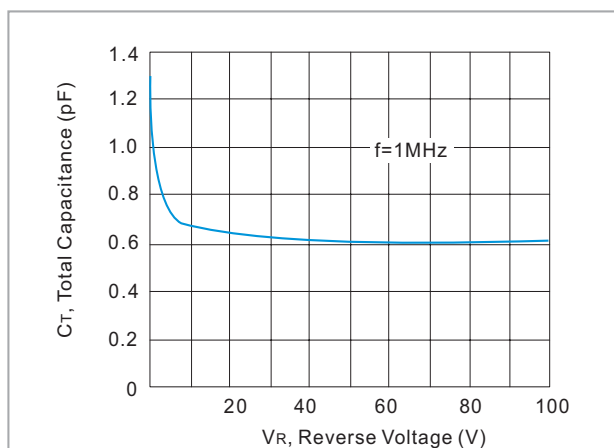
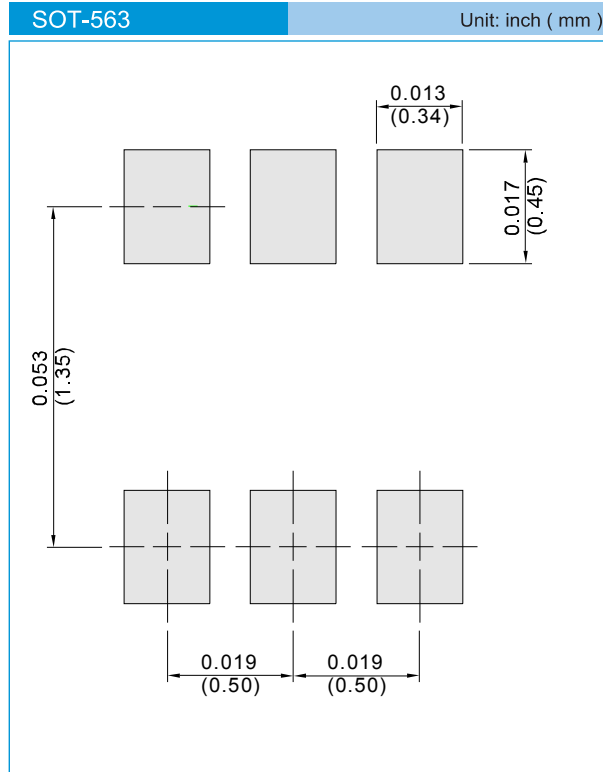


Figure 3. Total Capacitance vs. Reverse Voltage



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MOUNTING PAD LAYOUT



ORDER INFORMATION

- Packing information

T/R - 4K per 7" plastic Reel

T/R - 10K per 13" plastic Reel



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Part No_packing code_Version

ÓÆFJJÙVÓÍ _R1_00001

BAV199STB6_R2_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			



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