



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 $V_R=0V$, $f=1MHz$
- In compliance with EU RoHS 2002/95/EC directives

MECHANICAL DATA

- Case: SOT-563 plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx weight: 0.003gram
- Marking: TF

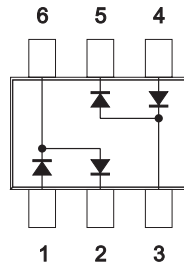
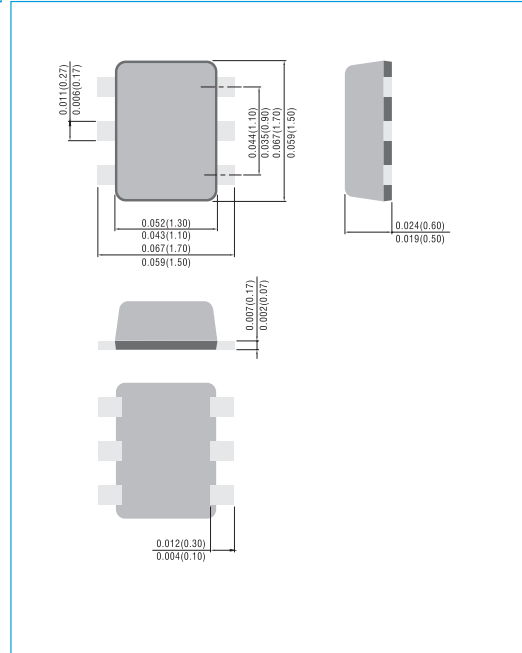


Fig.32



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.



BAV199STB6

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)

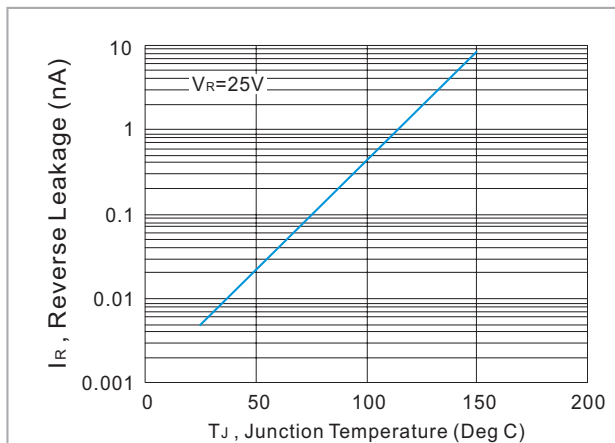


Figure 1. Reverse Leakage vs. Junction Temperature

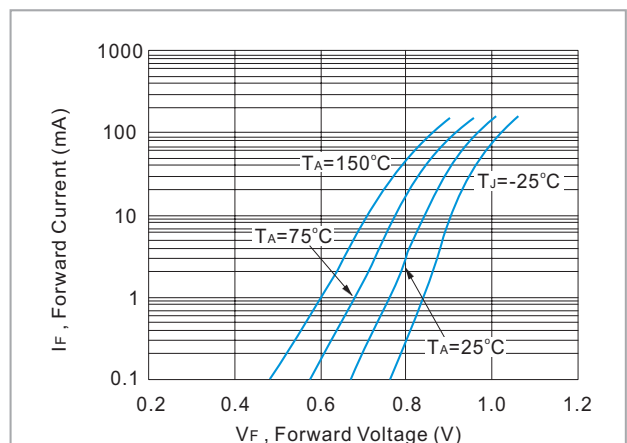


Figure 2. Forward Current vs. Forward Voltage

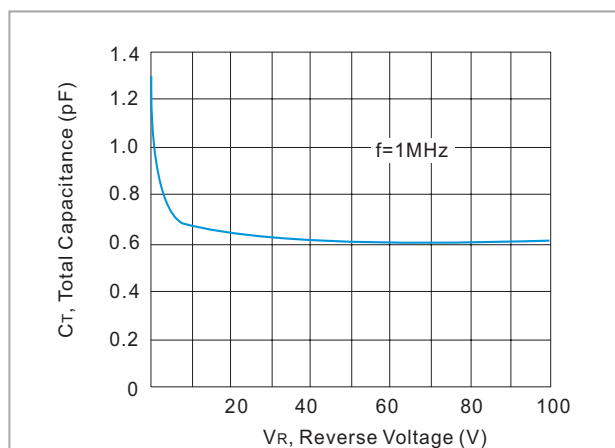
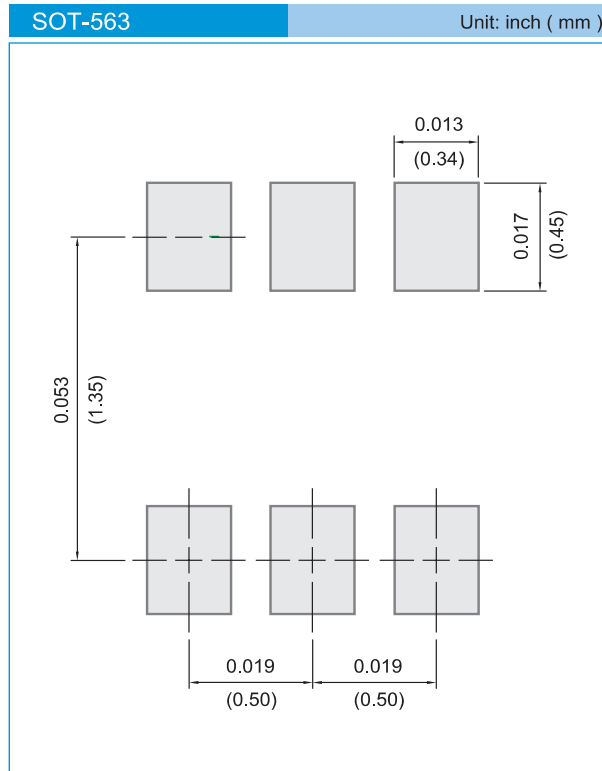


Figure 3. Total Capacitance vs. Reverse Voltage



BAV199STB6

MOUNTING PAD LAYOUT



ORDER INFORMATION

- Packing information

T/R - 4K per 7" plastic Reel

T/R - 10K per 13" plastic Reel

LEGAL STATEMENT

Copyright PanJit International, Inc 2009

The information presented in this document is believed to be accurate and reliable. The specifications and information herein are subject to change without notice. Pan Jit makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose. Pan Jit products are not authorized for use in life support devices or systems. Pan Jit does not convey any license under its patent rights or rights of others.