

DATA SHEET

BAV199S

SURFACE MOUNT, LOW LEAKAGE SWITCHING DIODES ARRAY

VOLTAGE 100 Volts **POWER** 200mWatts

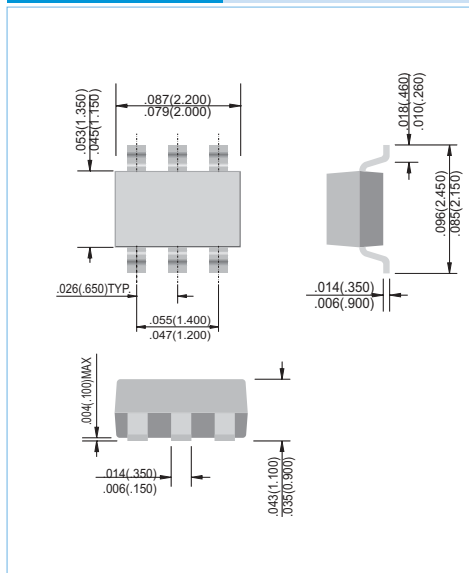
SOT-363 Unit: inch (mm)

FEATURES

Two isolated diode pairs for significant board space savings
Surface mount package ideally suited for automatic insertion
Very low leakage current. 5pA typical at $V_R=75V$.
Low capacitance. 2pF max at $V_R=0V$, $f=1MHz$

MECHANICAL DATA

Case: SOT-363 plastic
Terminals: Solderable per MIL-STD-202, Method 208
Approx weight: 0.008 gram
Marking: P2



ABSOLUTE RATINGS (each diode)

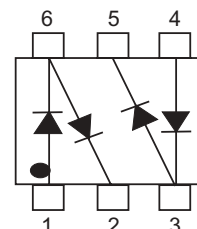
PARAMETER	Symbol	Value	UnitsMaximum
Maximum Reverse Voltage	V_R	100	V
Peak Reverse Voltage	V_{RM}	100	V
Continuous Forward Current	I_F	0.2	A
Non-repetitive Peak Forward Surge Current at $t=1.0\mu s$	I_{FSM}	2.0	A

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-5 Board = 1.0 x 0.75 x 0.062 in.



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}	$I_E=100\text{ }\mu\text{A}$			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}	$I_F=10\text{ mA}, R_L=100\Omega$			3.0	μs

CHARACTERISTIC CURVES (each diode)

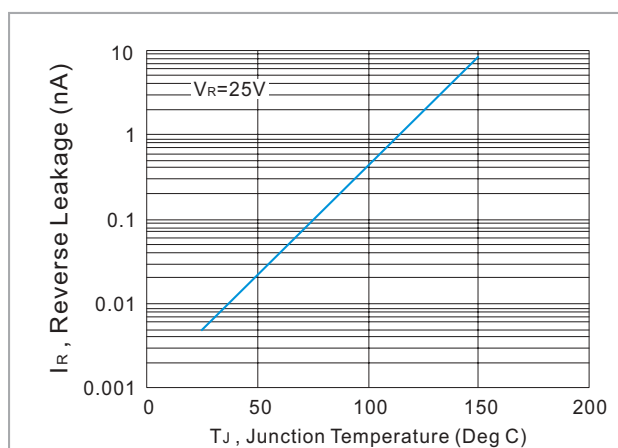


Figure 1. Reverse Leakage vs. Junction Temperature

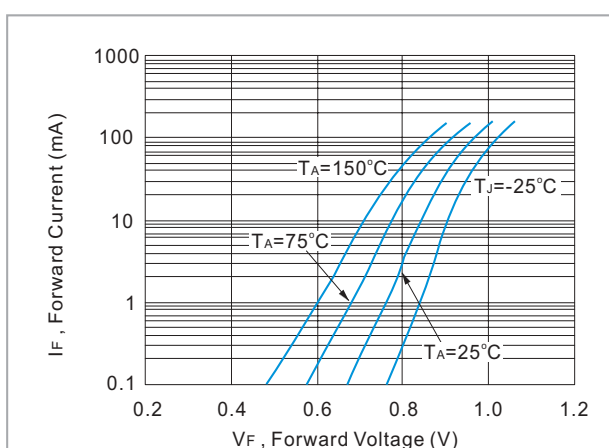


Figure 2. Forward Current vs. Forward Voltage

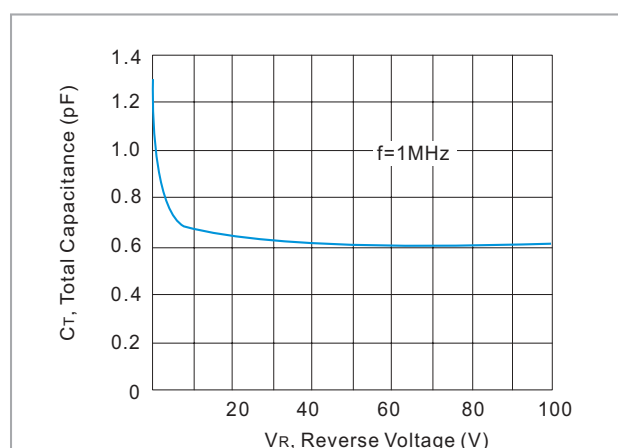


Figure 3. Total Capacitance vs. Reverse Voltage



ORDER INFORMATION

- Packing information

T/R - 12K per 13" plastic Reel

T/R - 3.0K per 7" plastic Reel

LEGAL STATEMENT

IMPORTANT NOTICE

This information is intended to unambiguously characterize the product in order to facilitate the customer's evaluation of the device in the application. The information will help the customer's technical experts determine that the device is compatible and interchangeable with similar devices made by other vendors. The information in this data sheet is believed to be reliable and accurate. The specifications and information herein are subject to change without notice. New products and improvements in products and product characterization are constantly in process. Therefore, the factory should be consulted for the most recent information and for any special characteristics not described or specified.

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