



BAV199S

SURFACE MOUNT, LOW LEAKAGE SWITCHING DIODES ARRAY

VOLTAGE 100 Volts **POWER** 200mWatts

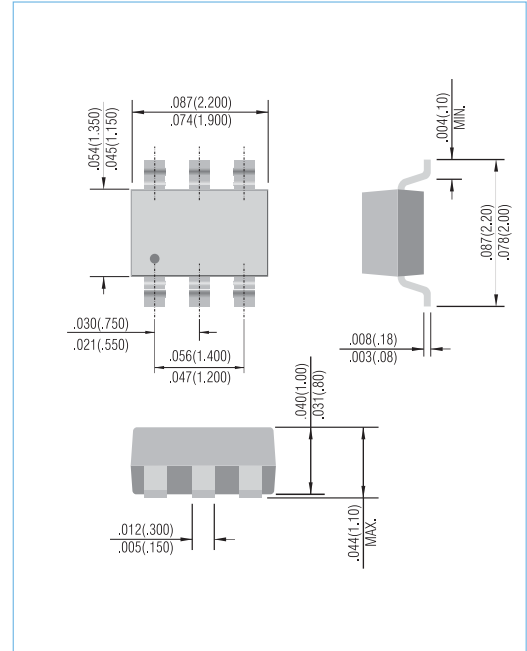
SOT-363 Unit: inch (mm)

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

MECHANICAL DATA

- Case: SOT-363 plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx weight: 0.008 gram
- Marking: PB



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-5 Board = 1.0 x 0.75 x 0.062 in.



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ELECTRICAL CHARACTERISTICS (each diode) (TA=25°C, unless otherwise noted)

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

CHARACTERISTIC CURVES (each diode)

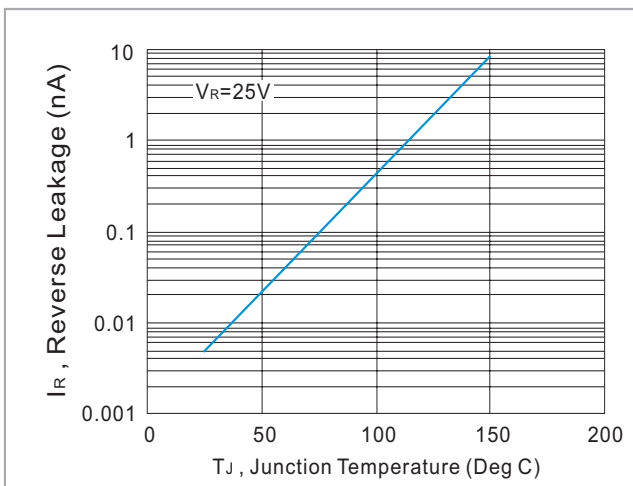


Figure 1. Reverse Leakage vs. Junction Temperature

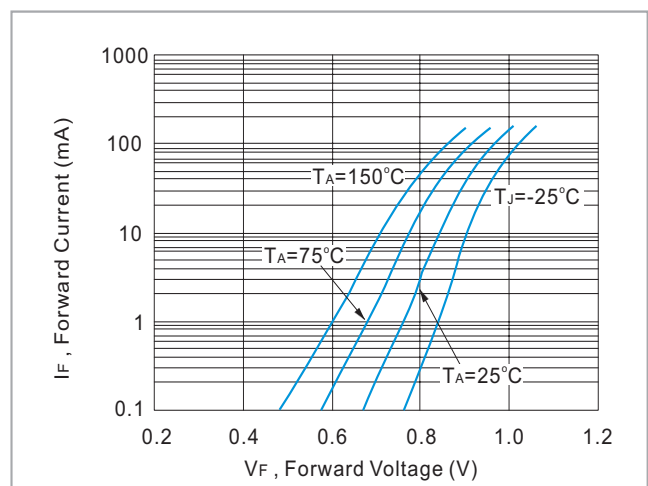


Figure 2. Forward Current vs. Forward Voltage

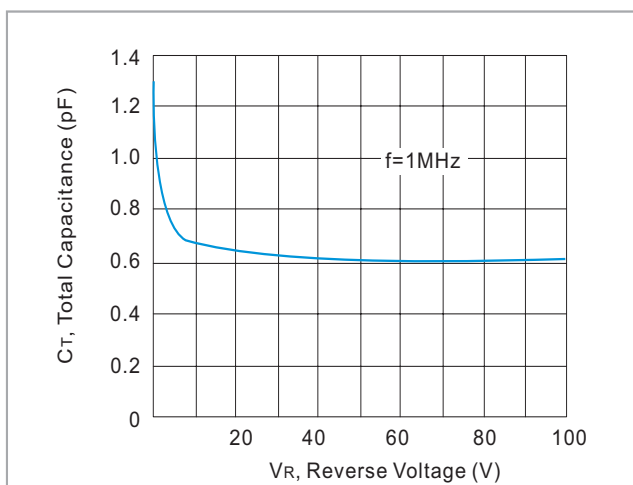


Figure 3. Total Capacitance vs. Reverse Voltage

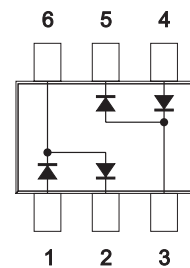
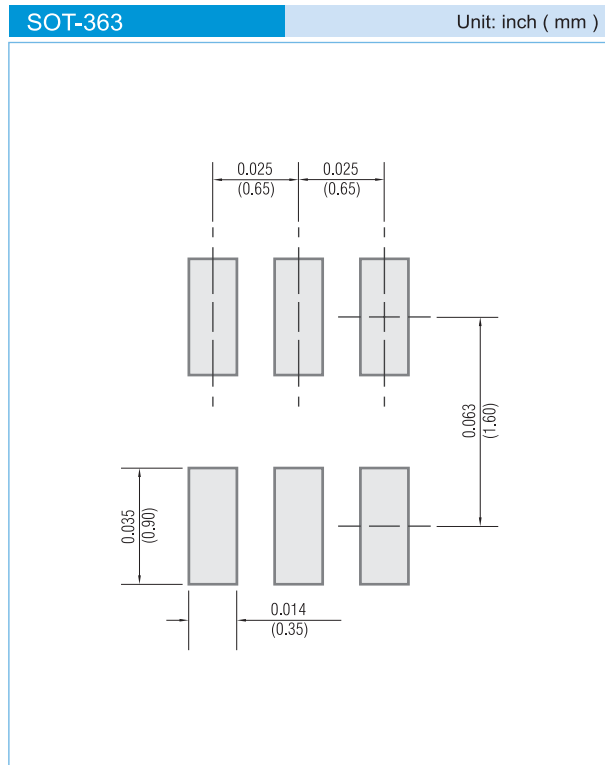


Fig.32



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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

LEGAL STATEMENT

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