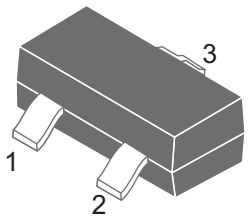
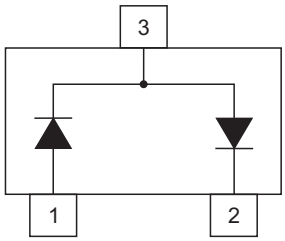
DUAL SERIES SWITCHING DIODE

SOT-23



Pin Configuration



Features

- We declare that the material of product compliant with RoHS requirements and Halogen Free

Mechanical Data

- **Case:** Molded plastic body
- **Terminals:** Plated leads solderable per MIL-STD-750,Method 2026

Device Marking And Ordering Information

Device	Marking	Shipping
BAV99	A7	3000pcs/Tape&Reel

Maximum & Thermal Characteristics Ratings (T_A=25°C unless otherwise noted)

Parameter	Symbol	Value	Units
Reverse Voltage	V_R	75	V
Forward Current	I_F	215	mA
Peak Forward Surge Current	$I_{FM(surge)}$	500	mA
Repetitive Peak Reverse Voltage	V_{RRM}	70	V
Average Rectified Forward Current (averaged over any 20 ms period)	$I_{F(AV)}$	715	mA
Repetitive Peak Forward Current	I_{FRM}	500	mA
Non-Repetitive Peak Forward Current t=1μs t=1ms t=1s	I_{FSM}	 2 1 0.5	A
Total Device Dissipation,FR−4 Board (1) @ T_A= 25°C Derate above 25°C	P_D	 225 1.8	 mW mW/°C
Thermal resistance junction to ambient (1)	$R_{\theta JA}$	556	°C/W
Junction and Storage temperature	T_J,T_{STG}	-65~+150	°C

Note :1.FR–4 = 1.0×0.75×0.062 in.

Electrical Characteristics(T_A=25°C unless otherwise specified)

Parameter	Symbol	Min.	Typ.	Max.	Units
Reverse Voltage Leakage Current (V_R = 25 Vdc, T_J = 150°C) (V_R = 70 Vdc) (V_R = 70 Vdc, T_J = 150°C)	I_R			 30 2.5 50	μA
Reverse Breakdown Voltage (I_{BR} = 100 μAdc)	V_{BR}	70			V
Forward Voltage (IF = 1.0 mAdc) (IF = 10 mAdc) (IF = 50 mAdc) (IF = 150 mAdc)	V_F			 715 855 1000 1250	mV
Diode Capacitance (V_R = 0, f = 1.0 MHz)	C_D			2.0	pF
Reverse Recovery Time (I_F = I_R = 10 mAdc, R_L = 100 Ω)	t_{rr}			6.0	ns
Forward Recovery Voltage (I_F = 10 mAdc, t_r = 20 ns)	V_{FR}			1.75	V

Characteristic Curves (T_A=25°C unless otherwise noted)

Fig.1 I_F vs. V_F

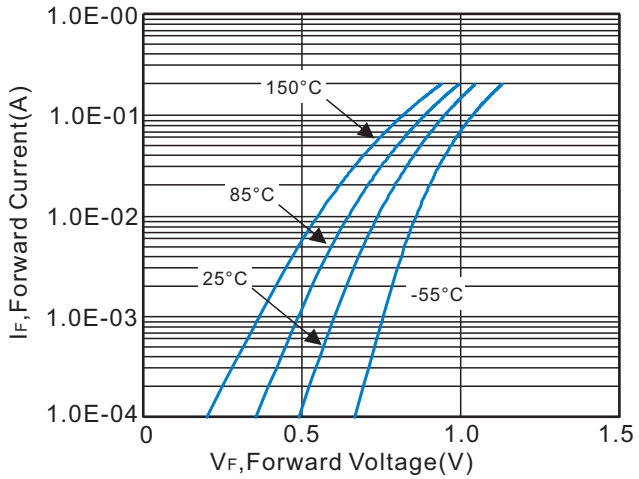


Fig.2 I_R vs. V_R

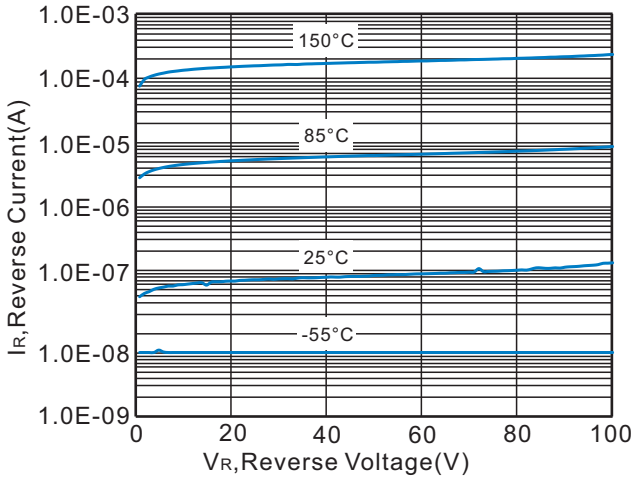
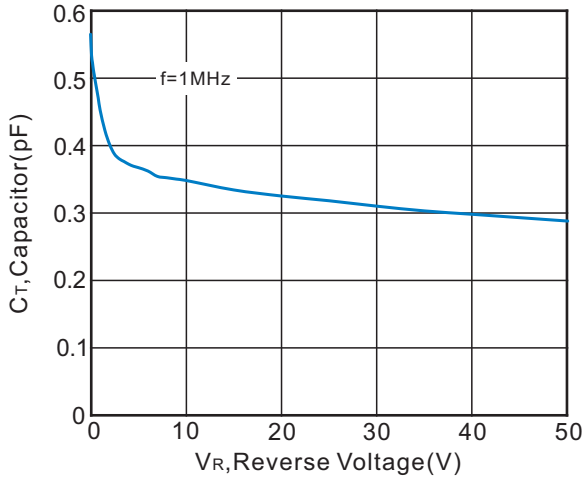
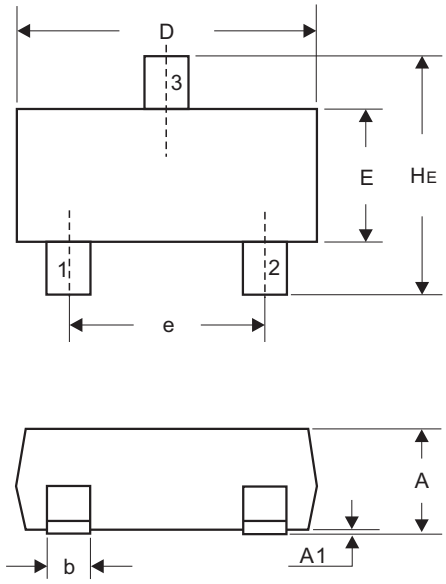


Fig.3 C_T vs. V_R



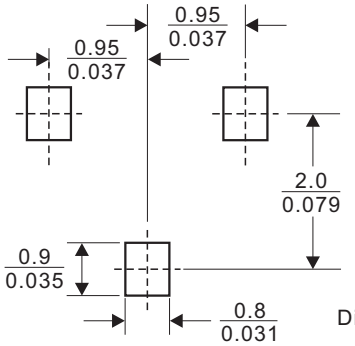
Dimensions(SOT-23)

SOT-23



DIM	Millimeters		Inches	
	Min	Max	Min	Max
A	0.89	1.11	0.035	0.044
A1	0.01	0.10	0.001	0.004
b	0.37	0.50	0.015	0.020
c	0.09	0.18	0.003	0.007
D	2.80	3.04	0.110	0.120
E	1.20	1.40	0.047	0.055
e	1.78	2.04	0.070	0.081
L	0.35	0.69	0.014	0.029
HE	2.10	2.64	0.083	0.104

Recommended Mounting Pad Layout



Dimensions in (millimeters / inches)