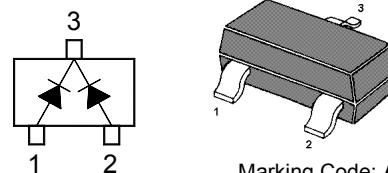


Features

- Small package
- Low forward voltage
- Fast reverse recovery time
- Small total capacitance

Applications

- Ultra high speed switching application



Marking Code: A4
SOT-23 Plastic Package

Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Maximum Peak Reverse Voltage	V_{RM}	100	V
Reverse Voltage	V_R	75	V
Average Forward Current	I_O	200	mA
Maximum Peak Forward Current	I_{FM}	300	mA
Non-Repetitive Peak Forward Surge Current at $t = 1 \text{ s}$ at $t = 1 \mu\text{s}$	I_{FSM}	1 2	A
Power Dissipation	P_d	350	mW
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	- 55 to + 150	°C

Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Min.	Max.	Unit
Forward Voltage at $I_F = 1 \text{ mA}$ at $I_F = 10 \text{ mA}$ at $I_F = 50 \text{ mA}$ at $I_F = 150 \text{ mA}$	V_F V_F V_F V_F	- - - -	715 855 1 1.25	mV mV V V
Reverse Current at $V_R = 20 \text{ V}$ at $V_R = 75 \text{ V}$ at $V_R = 25 \text{ V}, T_J = 150^\circ\text{C}$ at $V_R = 75 \text{ V}, T_J = 150^\circ\text{C}$	I_R I_R I_R I_R	- - - -	25 2.5 30 50	nA μA μA μA
Reverse Breakdown Voltage at $I_R = 100 \mu\text{A}$	$V_{(BR)R}$	75	-	V
Total Capacitance at $V_R = 0$, $f = 1 \text{ MHz}$	C_T	-	2	pF
Reverse Recovery Time at $I_F = I_R = 10 \text{ mA}$ to $I_{rr} = 1 \text{ mA}$, $R_L = 50 \Omega$	t_{rr}	-	4	ns

BAV70

RATING AND CHARACTERISTIC CURVES

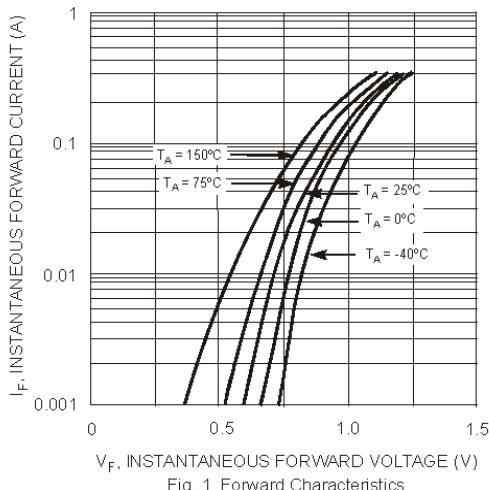


Fig. 1 Forward Characteristics

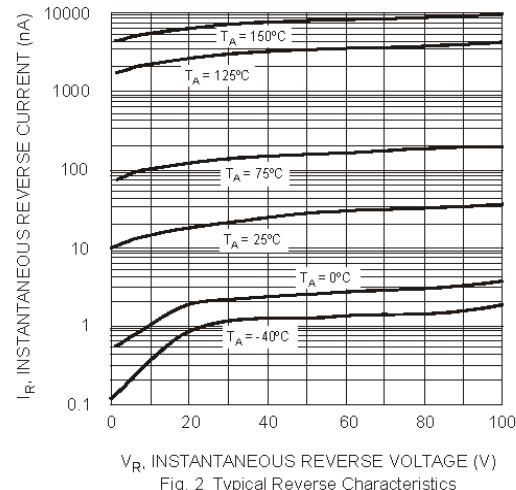


Fig. 2 Typical Reverse Characteristics

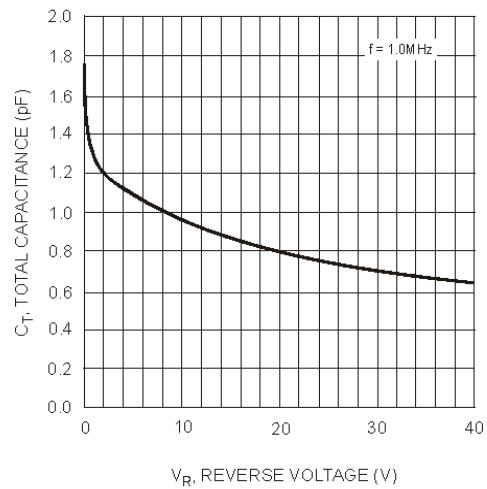


Fig. 3 Typical Capacitance vs. Reverse Voltage

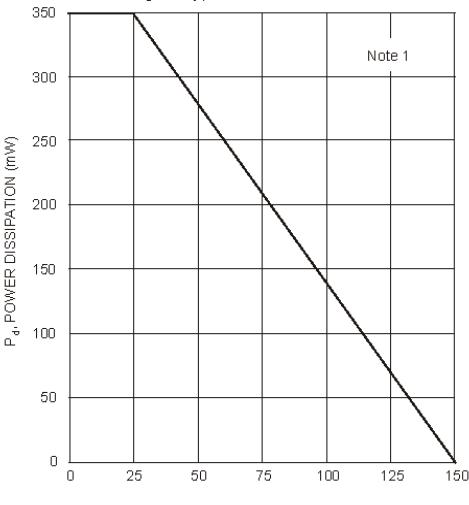


Fig. 4 Power Derating Curve
Note 1