Elektronische Bauelemente

BAV89

0.715 A , 70 V

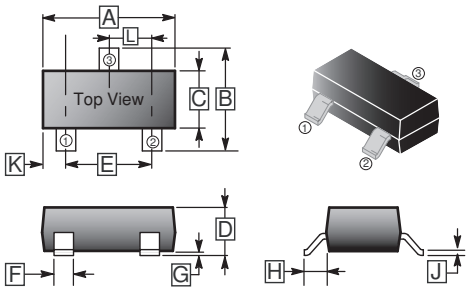
Surface Mount Switching Diode

RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

FEATURES

- Fast switching speed Max:4ns.
- High conductance.
- Connected in series.
- Surface mount package ideally suited for automatic insertion.

SOT-23



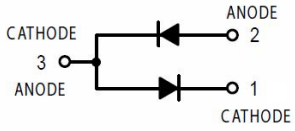
APPLICATIONS

- High-speed switching in thick and thin-film circuits.

MARKING

F7

REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	2.70	3.04	G	-	0.18
B	2.10	2.80	H	0.40	0.60
C	1.20	1.60	J	0.08	0.20
D	0.89	1.40	K	0.6 REF.	
E	1.78	2.04	L	0.85	1.15
F	0.30	0.50			



PACKAGE INFORMATION

Package	MPQ	Leader Size
SOT-23	3K	7 inch

ABSOLUTE MAXIMUM RATINGS (T_A = 25℃ unless otherwise specified)

Parameter		Symbol	Value	Unit
Reverse voltage		V_R	70	V
Forward current		I_F	215	mA
Peak forward surge current		I_{FM}	500	mA
Maximum Recurrent Peak Reverse Voltage		V_{RRM}	70	V
Maximum Average Forward Rectified Current		$I_{F(AV)}$	715	mA
Repetitive Peak Reverse current		I_{FRM}	450	mA
Peak Forward Surge Current 8.3 ms Single Half Sine-Wave Super Imposed on Rated Load (JEDEC Method)	t=1.0μs	I_{FSM}	2.0	A
	t=1.0ms		1.0	
	t=1.0s		0.5	
Power dissipation		Pd	225	mW
Typical Thermal Resistance		$R_{\theta JA}$	556	℃ / W
Operating and storage temperature range		T_J,T_{STG}	-65~150	℃

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ELECTRICAL CHARACTERISTICS (T_A = 25℃ unless otherwise specified)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Reverse Breakdown Voltage	$V_{(BR)R}$	75	-	-	V	I_R=2.5μA
Forward Voltage	V_{F1}	-	-	0.715	V	I_F=1mA
	V_{F2}	-	-	0.855		I_F=10mA
	V_{F3}	-	-	1		I_F=50mA
	V_{F4}	-	-	1.25		I_F=150mA
Reverse Voltage Leakage Current	I_{R1}	-	-	0.025	μA	V_R=20V
	I_{R2}			2.5		V_R=75V
	I_{R3}			30		V_R=25V T_j=150℃
	I_{R4}			50		V_R=75V T_j=150℃
Diode Capacitance	C_D	-	-	2.0	pF	V_R=0 , f = 1MHz
Reverse Recovery Time	T_{RR}	-	-	4.0	nS	I_F=I_R=10mA, I_{RR}=0.1 x I_R, R_L=100Ω

RATINGS AND CHARACTERISTIC CURVES

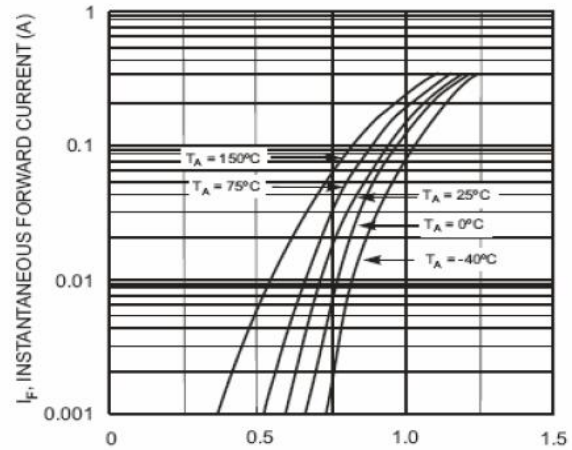

Fig. 1 Forward Characteristics

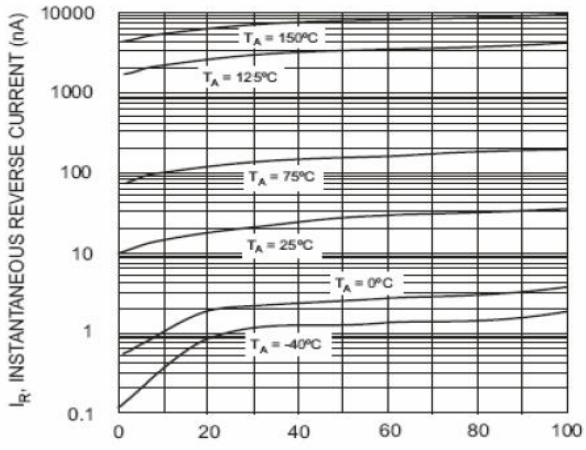

Fig. 2 Typical Reverse Characteristics

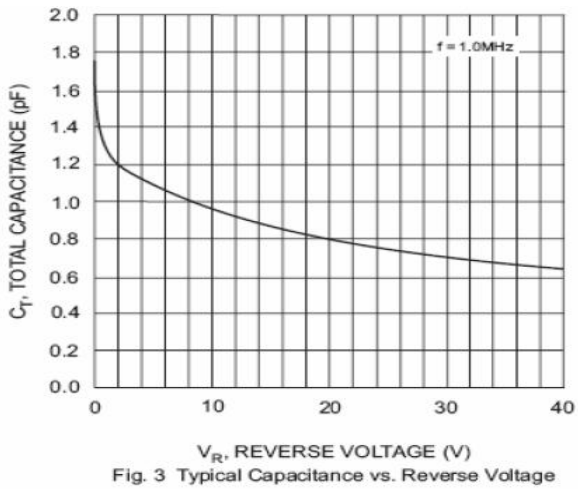

Fig. 3 Typical Capacitance vs. Reverse Voltage

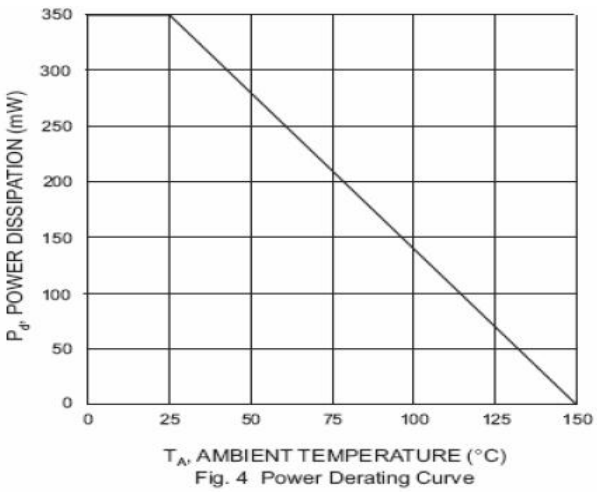

Fig. 4 Power Derating Curve