



Micro Commercial Components



Micro Commercial Components
 20736 Marilla Street Chatsworth
 CA 91311
 Phone: (818) 701-4933
 Fax: (818) 701-4939

BAV170

Features

- Surface Mount Package Ideally Suited for Automatic Insertion
- Very Low Leakage Current
- Lead Free Finish/Rohs Compliant ("P" Suffix designates RoHS Compliant. See ordering information)

Mechanical Data

- Case: SOT-23
- Weight: approx. 0.008 grams
- Marking Code: JX
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1

Maximum Ratings

Symbol	Parameter	Rating	Unit
V_{RRM}	Peak Repetitive Reverse Voltage	85	V
V_{RWM}	Working Peak Reverse Voltage		
$V_{R(RMS)}$	RMS Reverse Voltage	60	V
I_F	Forward Continuous Current Single diode loaded Note1	215	mA
	Double diode loaded Note1	125	
I_{FRM}	Repetitive Peak Forward Current	500	mA
I_{FSM}	Non-Repetitive Peak Forward Surge Current @ t=1.0us	4.0	A
	@ t=1.0ms	1.0	
	@ t=1.0s	0.5	
P_D	Power Dissipation	250	mW
R_{JA}	Thermal Resistance Junction to Ambient Air	500	K/W
T_J	Junction Temperature	150	°C
T_{STG}	Storage Temperature	-65 to +150	°C

Note 1: Device mounted on a FR4 printed circuit board

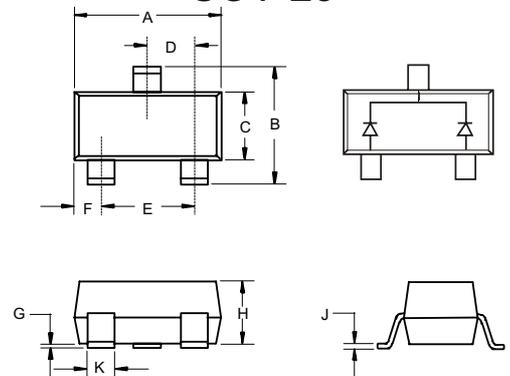
Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter	Min	Typ	Max	Units
$V_{(BR)R}$	Reverse Breakdown Voltage ($I_R=100\mu A$)	85	---	---	V
V_F	Forward Voltage ⁽¹⁾ $I_F=1.0mA$	---	---	0.9	V
	$I_F=10mA$	---	---	1.0	
	$I_F=50mA$	---	---	1.1	
	$I_F=150mA$	---	---	1.25	
I_R	Leakage Current ($V_R=75Vdc$)	---	---	5.0	nA
C_j	Junction Capacitance ($V_R=0, f=1.0MHz$)	---	2.0	---	pF
t_{rr}	Reverse Recovery Time ($I_F=10mA, I_R=10mA, I_{rr}=0.1 \times I_R$ $R_L=100\Omega$)	---	---	3.0	us

⁽¹⁾ Short duration pulse test to minimize self-heating effect.

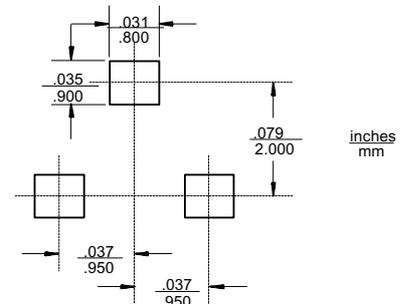
250mW
Low Leakage Diode
85 Volts

SOT-23



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.110	.120	2.80	3.04	
B	.083	.098	2.10	2.64	
C	.047	.055	1.20	1.40	
D	.035	.041	.89	1.03	
E	.070	.081	1.78	2.05	
F	.018	.024	.45	.60	
G	.0005	.0039	.013	.100	
H	.035	.044	.89	1.12	
J	.003	.007	.085	.180	
K	.015	.020	.37	.51	

Suggested Solder Pad Layout



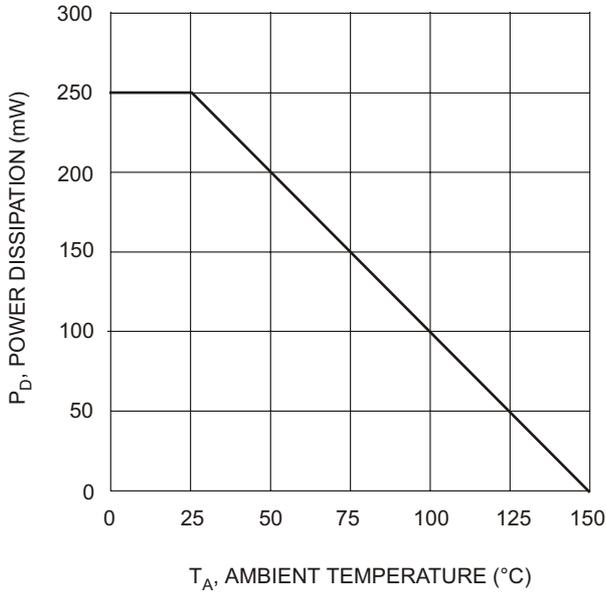


Fig. 1 Power Derating Curve

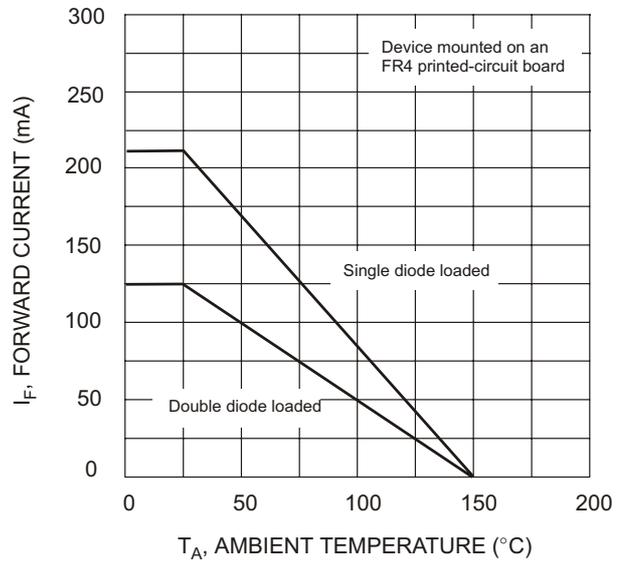


Fig. 2 Current Derating Curve

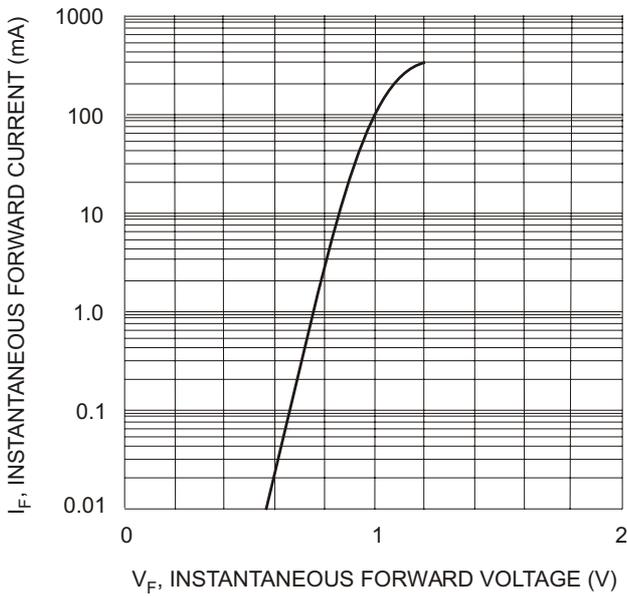


Fig. 3 Typical Forward Characteristics

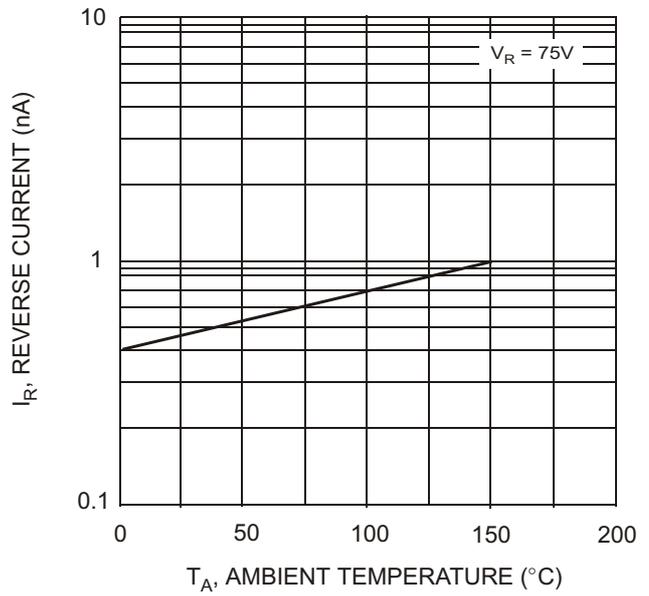


Fig. 4 Typical Reverse Characteristics



TM

Micro Commercial Components

Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel: 3Kpcs/Reel

*****IMPORTANT NOTICE*****

Micro Commercial Components Corp. reserves the right to make changes without further notice to any product herein to make corrections, modifications , enhancements , improvements , or other changes . **Micro Commercial Components Corp .** does not assume any liability arising out of the application or use of any product described herein; neither does it convey any license under its patent rights ,nor the rights of others . The user of products in such applications shall assume all risks of such use and will agree to hold **Micro Commercial Components Corp .** and all the companies whose products are represented on our website, harmless against all damages.

*****LIFE SUPPORT*****

MCC's products are not authorized for use as critical components in life support devices or systems without the express written approval of Micro Commercial Components Corporation.

*****CUSTOMER AWARENESS*****

Counterfeiting of semiconductor parts is a growing problem in the industry. Micro Commercial Components (MCC) is taking strong measures to protect ourselves and our customers from the proliferation of counterfeit parts. MCC strongly encourages customers to purchase MCC parts either directly from MCC or from Authorized MCC Distributors who are listed by country on our web page cited below. Products customers buy either from MCC directly or from Authorized MCC Distributors are genuine parts, have full traceability, meet MCC's quality standards for handling and storage. **MCC will not provide any warranty coverage or other assistance for parts bought from Unauthorized Sources.** MCC is committed to combat this global problem and encourage our customers to do their part in stopping this practice by buying direct or from authorized distributors.