

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

## FEATURES

- For General Purpose Switching Applications
- Fast Switching Speed
- High Conductance
- Qualified to AEC-Q101 Standards for High Reliability
- Surface Mount Package Ideally Suited for Automatic Insertion

## APPLICATIONS

- High-Speed Switching Application

## MARKING

A1

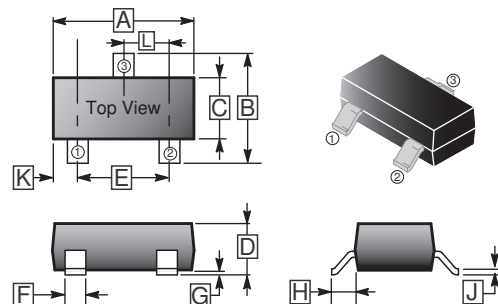
## PACKAGE INFORMATION

Package	MPQ	Leader Size
SOT-23	3K	7 inch

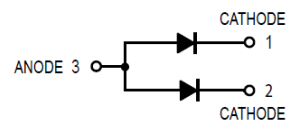
## ORDER INFORMATION

Part Number	Type
BAW56CR-C	Lead (Pb)-free and Halogen-free

## SOT-23



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	2.65	3.10	G	0	0.18
B	2.10	3.00	H	0.55	REF.
C	1.10	1.80	J	0.05	0.26
D	0.89	1.40	K	0.60	REF.
E	1.70	2.30	L	0.95	TYP.
F	0.28	0.55			



## ABSOLUTE MAXIMUM RATINGS (T<sub>A</sub>=25°C unless otherwise specified)

Parameter	Symbol	Ratings	Unit
Non-Repetitive Peak Reverse Voltage	V <sub>RM</sub>	100	V
Peak Repetitive Reverse Voltage	V <sub>RPM</sub>	75	V
Working Peak Reverse Voltage	V <sub>RWM</sub>	75	V
DC Blocking Voltage	V <sub>R</sub>	75	V
Average Rectified Output Current	I <sub>O</sub>	150	mA
Peak Forward Surge Current @t=1μs	I <sub>FSM</sub>	4	A
Power Dissipation	P <sub>D</sub>	250	mW
Thermal Resistance Junction-Ambient	R <sub>θJA</sub>	500	°C/W
Operating Junction & Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	150, -65~150	°C

## ELECTRICAL CHARACTERISTICS (T<sub>A</sub>=25°C unless otherwise specified)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Forward Voltage	V <sub>F</sub>	-	-	0.715	V	I <sub>F</sub> =1mA
		-	-	0.855		I <sub>F</sub> =10mA
		-	-	1		I <sub>F</sub> =50mA
		-	-	1.25		I <sub>F</sub> =150mA
Reverse Leakage Current	I <sub>R</sub>	-	-	2.5	μA	V <sub>R</sub> =75V
		-	-	25		nA
Diode Capacitance	C <sub>D</sub>	-	2	-	pF	V <sub>R</sub> =0, f=1MHz
Reverse Recovery Time	T <sub>RR</sub>	-	4	-	nS	I <sub>F</sub> =I <sub>R</sub> =10mA, I <sub>rr</sub> =0.1xI <sub>R</sub> , R <sub>L</sub> =100Ω

**RATINGS AND CHARACTERISTIC CURVES**

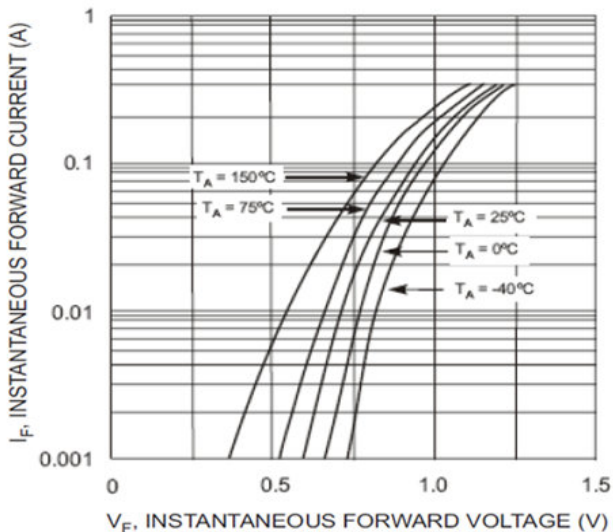


Fig. 1 Forward Characteristics

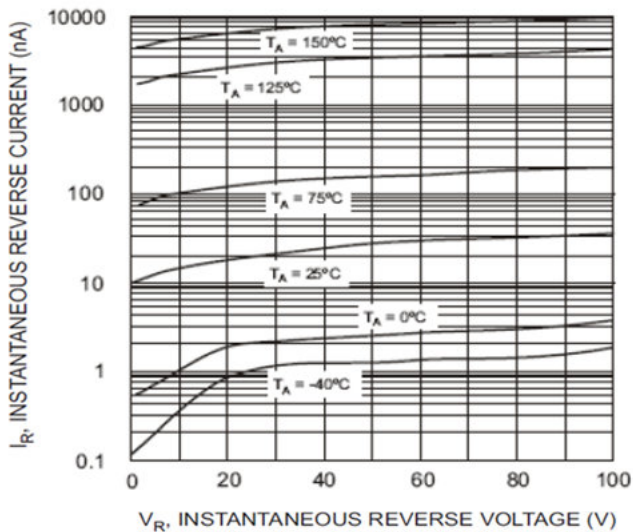


Fig. 2 Typical Reverse Characteristics

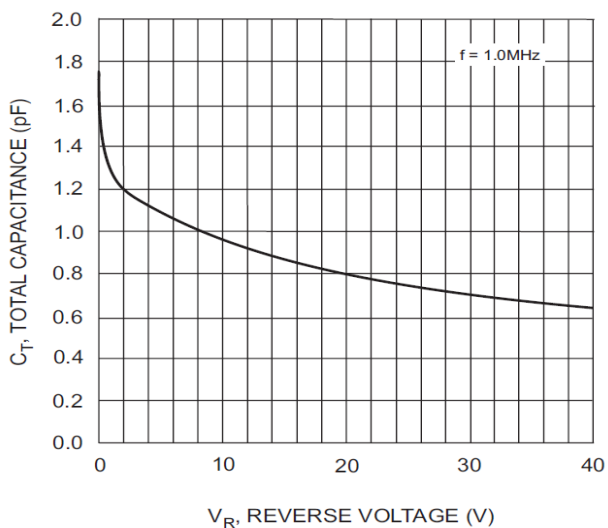


Fig. 3 Typical Capacitance vs. Reverse Voltage

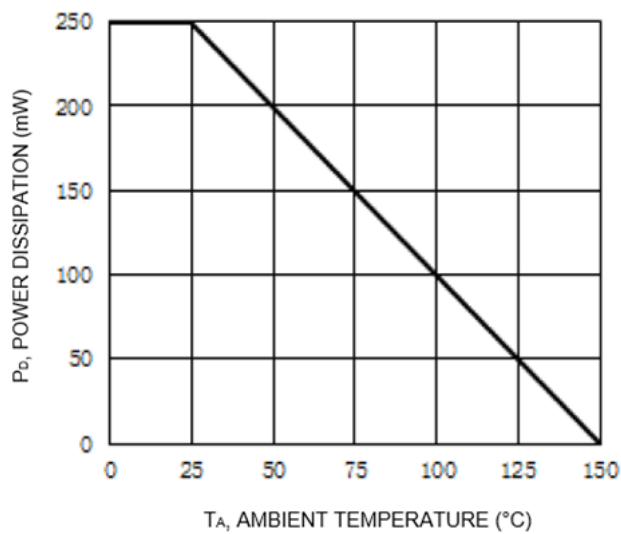
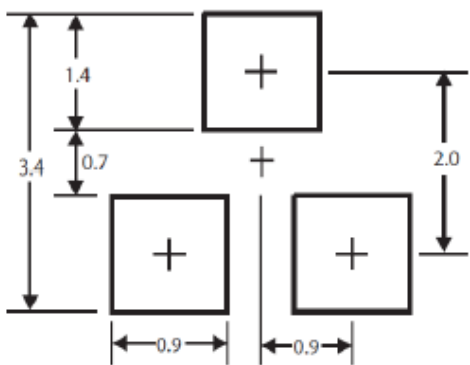


Fig. 4 Power Derating Curve



\*Dimensions in millimeters

Fig. 5 Mounting Pad Layout