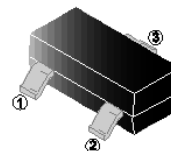


RoHS Compliant Product  
A suffix of "-C" specifies halogen & lead-free

## FEATURES

- High Conductance
- Low Current Leakage
- Small Outline Surface Mount Package

**SOT-23**



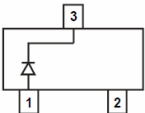
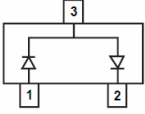
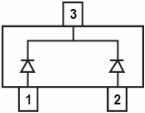
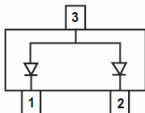
## MECHANICAL DATA

- Case: SOT-23
- Terminals: solderable per MIL-STD-202, Method 208
- Lead (Pb)-free and Halogen-free

## PACKAGE INFORMATION

Package	MPQ	Leader Size
SOT-23	3K	7 inch

## ORDER INFORMATION

Part Number	Equivalent Circuit	Marking
BAS40-C		43
BAS40-04-C		44
BAS40-05-C		45
BAS40-06-C		46

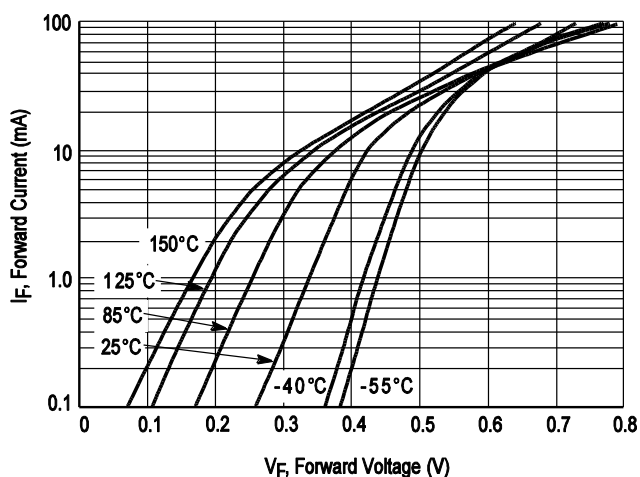
## ABSOLUTE MAXIMUM RATINGS (T<sub>A</sub>=25°C unless otherwise specified)

Parameter	Symbol	Ratings	Unit
DC Reverse Voltage	V <sub>R</sub>	40	V
Forward Continuous Current	I <sub>F</sub>	200	mA
Power Dissipation	P <sub>D</sub>	200	mW
Non-Repetitive Peak Forward Surge Current @t=1s	I <sub>FSM</sub>	600	mA
Thermal Resistance from Junction-Ambient	R <sub>θJA</sub>	500	°C/W
Soldering Temperature During	T <sub>L</sub>	260	°C
Junction & Storage Temperature	T <sub>J</sub> , T <sub>STG</sub>	125, -55~150	

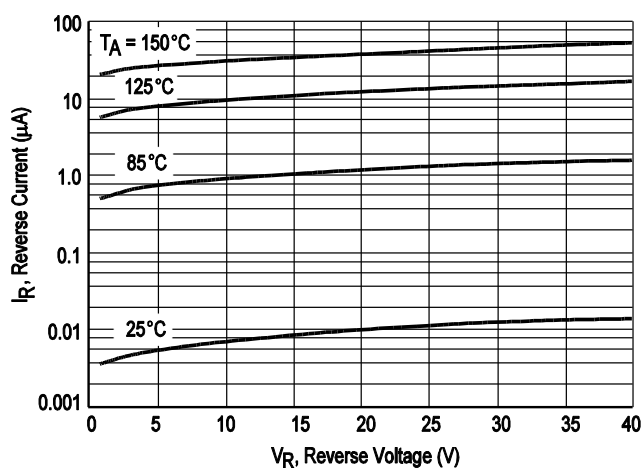
**ELECTRICAL CHARACTERISTICS** ( $T_A=25^\circ\text{C}$  unless otherwise noted)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Forward Voltage	$V_F$	-	-	0.38	V	$I_F=1\text{mA}$
		-	-	1		$I_F=40\text{mA}$
Reverse Breakdown Voltage	$V_R$	40	-	-		$I_R=10\mu\text{A}$
Reverse Current	$I_R$	-	-	200	nA	$V_R=30\text{V}$
Junction Capacitance	$C_J$	-	5	-	pF	$V_R=0\text{V}$ , $f=1\text{MHz}$
Reverse Recovery Time	$T_{rr}$	-	5	-	nS	$I_F=I_R=10\text{mA}$ , $I_{RR}=1\text{mA}$

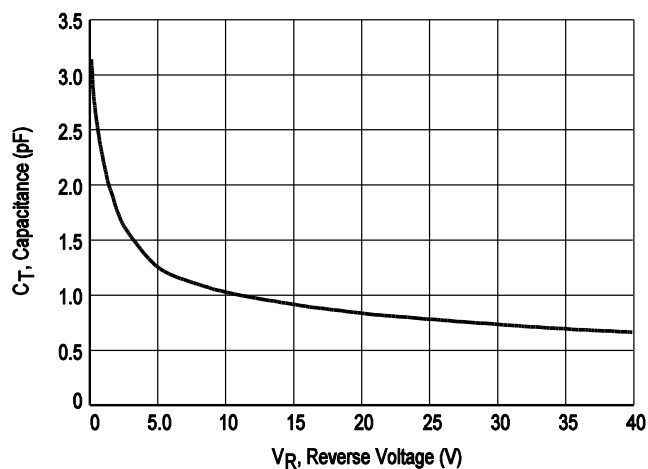
**RATINGS AND CHARACTERISTIC CURVES**



**Figure 1. Typical Forward Voltage**



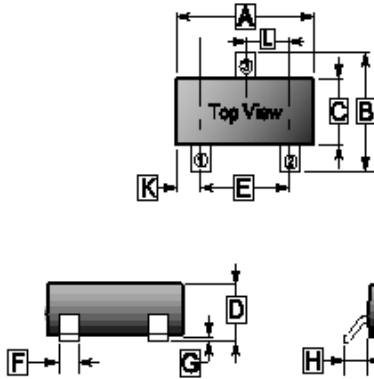
**Figure 2. Reverse Current versus Reverse Voltage**



**Figure 3. Typical Capacitance**

**PACKAGE OUTLINE DIMENSIONS**

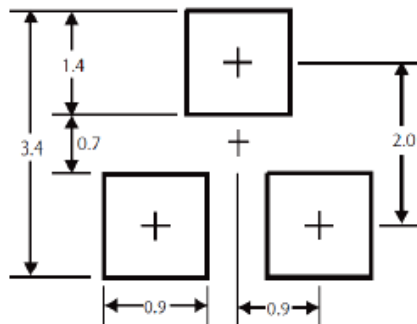
**SOT-23**



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

**MOUNTING PAD LAYOUT**

**SOT-23**



\*Dimensions in millimeters