Elektronische Bauelemente

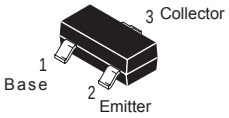
BAS40/-04/-05/-06

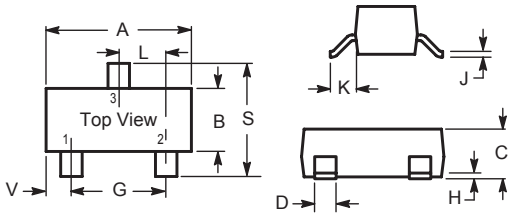
Surface Mount Schottky Barrier Diodes

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

FEATURES

- Low Turn-on Voltage
- Low Forward Voltage
- Very Low Capacitance
  Less Than 5.0pF @ 0V
- For high speed switching application, circuit protection

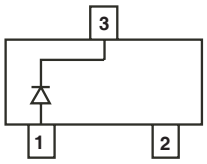




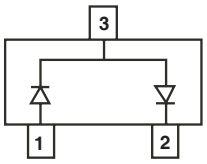
SOT-23		
Dim	**Min**	**Max**
A	2.800	3.040
B	1.200	1.400
C	0.890	1.110
D	0.370	0.500
G	1.780	2.040
H	0.013	0.100
J	0.085	0.177
K	0.450	0.600
L	0.890	1.020
S	2.100	2.500
V	0.450	0.600
All Dimension in mm		

MECHANICAL DATA

- Case: SOT-23, Molded Plastic
- Terminals: Solderable per MIL-STD-202, Method 208
- Polarity: See Diagrams Below
- Weight: 0.008 grams (approx.)
- Mounting Position: Any



BAS40 Marking: 43



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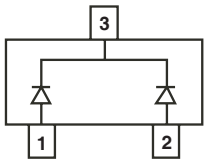

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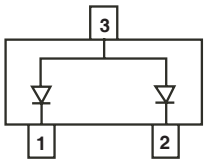

BAS40-06 Marking: 46

ABSOLUTE MAXIMUM RATINGS at Ta = 25°C

Parameter	Symbol	Ratings	Unit
Reverse Voltage	V_R	40	V
Forward Continuous Current	I_F	200	mA
Single Forward Current, t≦10 ms	I_{FSM}	600	mA
Thermal Resistance (Note 1) Junction−to−Ambient (Note 2)	$R_{\theta JA}$	508 311	°C/W
Forward Power Dissipation @ T_A = 25°C Derate above 25°C	P_F	325 1.8	mW mW / °C
Junction, Storage Temperature	T_J, T_{STG}	-55 ~ +150	°C

ELECTRICAL CHARACTERISTICS (at Ta = 25°C unless otherwise specified)

Parameters	Symbol	Min.	Max.	Unit	Test Conditions
Reverse Breakdown Voltage	$V_{(BR)R}$	40	-	V	I_R = 10 μA
Reverse Current	I_R	-	200	nA	V_R = 30V
Forward Voltage	V_{F1}	-	380	mV	I_F = 1mA
	V_{F2}	-	1000	mV	I_F = 40mA
Diode Capacitance	C_{TOT}	-	5.0	pF	V_R = 0, f=1MHz
Reverse Recovery Time	t_{RR}	-	5	nS	I_{RR} = 1 mA, I_R=I_F=10mA, R_L=100Ω

RATINGS AND CHARACTERISTIC CURVES

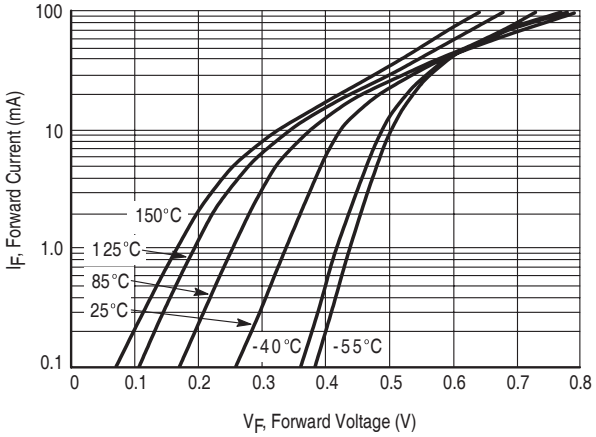

Figure 1. Typical Forward Voltage

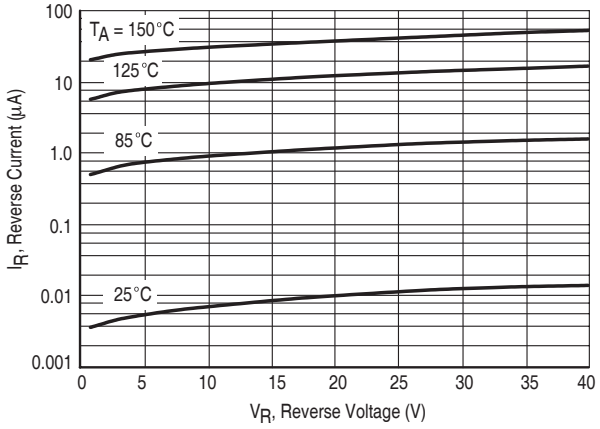

Figure 2. Reverse Current versus Reverse Voltage

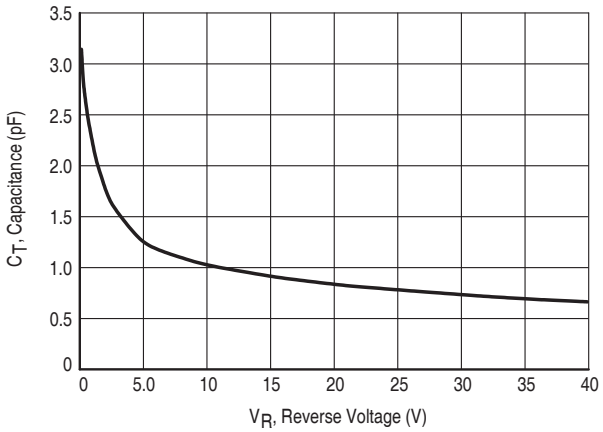

Figure 3. Typical Capacitance