BAS40/ -04/ -05/ -06

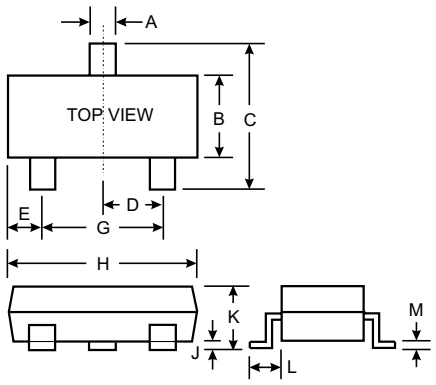
SURFACE MOUNT SCHOTTKY BARRIER DIODE

Features

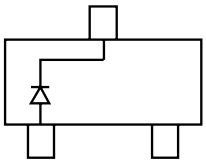
- Low Turn-on Voltage
- Fast Switching
- PN Junction Guard Ring for Transient and ESD Protection

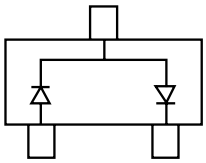
Mechanical Data

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



SOT-23		
Dim	**Min**	**Max**
A	0.37	0.51
B	1.19	1.40
C	2.10	2.50
D	0.89	1.05
E	0.45	0.61
G	1.78	2.05
H	2.65	3.05
J	0.013	0.15
K	0.89	1.10
L	0.45	0.61
M	0.076	0.178
All Dimensions in mm		


BAS40 Marking: 43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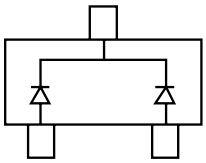
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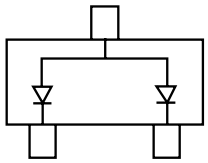
BAS40-06 Marking: 46

Maximum Ratings @ T_A = 25°C unless otherwise specified

Characteristic	Symbol	BAS40	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	40	V
Forward Continuous Current (Note 1)	I_{FM}	200	mA
Power Dissipation (Note 1)	P_d	350	mW
Forward Surge Current (Note 1) @ t < 1.0s	I_{FSM}	600	mA
Thermal Resistance, Junction to Ambient Air (Note 1)	$R_{\theta JA}$	357	°C/W
Operating Junction Temperature Range	T_j	-55 to +125	°C
Storage Temperature Range	T_{STG}	-65 to +150	°C

Electrical Characteristics @ T_A = 25°C unless otherwise specified

Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Breakdown Voltage	$V_{(BR)R}$	40	—	—	V	I_{RS} = 10μA
Forward Voltage	V_F	—	—	380 1000	mV	t_p < 300μs, I_F = 1.0mA t_p < 300μs, I_F = 40mA
Reverse Leakage Current	I_R	—	20	200	nA	t_p < 300μs, V_R = 30V
Junction Capacitance	C_j	—	4.0	5.0	pF	V_R = 0V, f =1.0MHz
Reverse Recovery Time	t_{rr}	—	—	5.0	ns	I_F = I_R = 10mA to I_R = 1.0mA, R_L = 100Ω

Note: 1. Valid provided that device terminals are kept at ambient temperature.