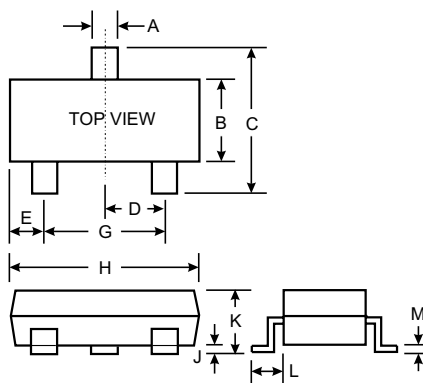


Features

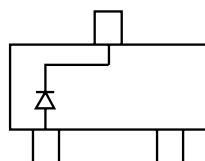
- Low Turn-on Voltage
- Fast Switching
- PN Junction Guard Ring for Transient and ESD Protection

Mechanical Data

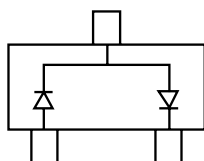
- Case: SOT-23, Molded Plastic
- Terminals: Solderable per MIL-STD-202, Method 208
- Polarity: See Diagram Below
- Weight: 0.008 grams (approx.)
- Mounting Position: Any



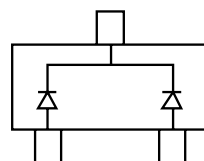
SOT-23		
Dim	Min	Max
A	0.37	0.51
B	1.19	1.40
C	2.10	2.50
D	0.89	1.05
E	0.45	0.61
G	1.78	2.05
H	2.65	3.05
J	0.013	0.15
K	0.89	1.10
L	0.45	0.61
M	0.076	0.178
All Dimensions in mm		



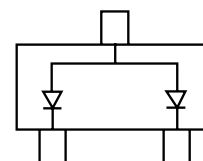
BAS40 Marking: 43, K43



BAS40-04 Marking: 44, K44



BAS40-05 Marking: 45, K45



BAS40-06 Marking: 46, K46

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 _{θJA}	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.