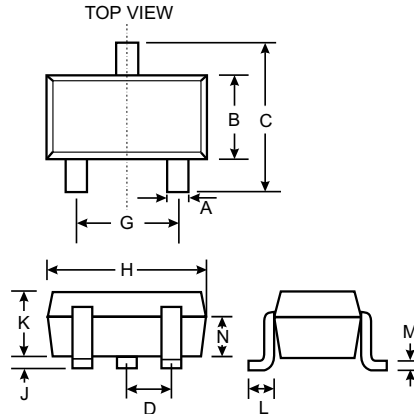


Features

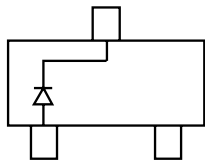
- Low Forward Voltage Drop
- Fast Switching
- Ultra-Small Surface Mount Package
- PN Junction Guard Ring for Transient and ESD Protection

Mechanical Data

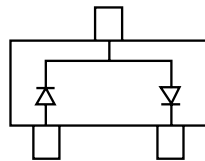
- Case: SOT-523, Molded Plastic
- Terminals: Solderable per MIL-STD-202, Method 208
- Polarity: See Diagram
- Marking: See Diagram
- Weight: 0.002 grams (approx.)
- Ordering Information, see Sheet 2



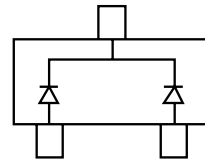
SOT-523			
Dim	Min	Max	Typ
A	0.15	0.30	0.22
B	0.75	0.85	0.80
C	1.45	1.75	1.60
D	—	—	0.50
G	0.90	1.10	1.00
H	1.50	1.70	1.60
J	0.00	0.10	0.05
K	0.60	0.80	0.75
L	0.10	0.30	0.22
M	0.10	0.20	0.12
N	0.45	0.65	0.50
All Dimensions in mm			



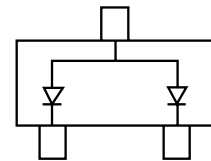
BAS40T Marking: 43



BAS40T-04 Marking: 44



BAS40T-05 Marking: 45



BAS40T-06 Marking: 46

Maximum Ratings @ T_A = 25°C unless otherwise specified

Characteristic	Symbol	BAS40T	Unit
Peak Repetitive Reverse Voltage	V _{RRM}	40	V
Working Peak Reverse Voltage	V _{RWM}		
DC Blocking Voltage	V _R		
RMS Reverse Voltage	V _{R(RMS)}	28	V
Forward Continuous Current	I _{FM}	200	mA
Non-Repetitive Peak Forward Surge Current @ t = 1.0s	I _{FSM}	600	mA
Power Dissipation (Note 1)	P _d	150	mW
Thermal Resistance Junction to Ambient (Note 1)	R _{θJA}	833	°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	Max	Unit	Test Condition
Reverse Breakdown Voltage (Note 2)	V _{(BR)R}	40	—	V	I _R = 10μA
Forward Voltage (Note 2)	V _F	—	380 1000	mV mV	I _F = 1.0mA, t _p < 300μs I _F = 40mA, t _p < 300μs
Leakage Current (Note 2)	I _R	—	200	nA	V _R = 30V
Junction Capacitance	C _j	—	5.0	pF	V _R = 0, f = 1.0MHz
Reverse Recovery Time	t _{rr}	—	5.0	ns	I _F = I _R = 10mA, I _{rr} = 0.1 x I _R , R _L = 100Ω

- Notes: 1. Device mounted on FR-4 PC board with recommended pad layout.
2. Short duration pulse test to minimize self-heating effect.

Ordering Information (Note 3)

Device	Packaging	Shipping
BAS40T-7	SOT-523	3000/Tape & Reel
BAS40T-04-7	SOT-523	3000/Tape & Reel
BAS40T-05-7	SOT-523	3000/Tape & Reel
BAS40T-06-7	SOT-523	3000/Tape & Reel

Notes: 3. For Packaging Details, go to our website at <http://www.diodes.com/datasheets/ap02007.pdf>.