

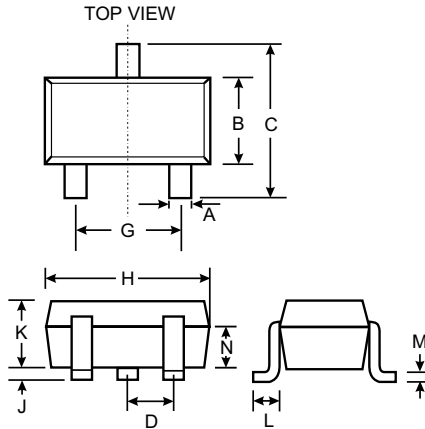
**UNDER DEVELOPMENT**

**Features**

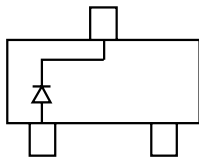
- Low Turn-on Voltage
- Fast Switching
- PN Junction Guard Ring for Transient and ESD Protection
- Ultra-Small Surface Mount Package

**Mechanical Data**

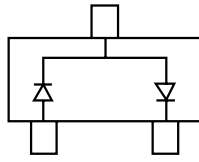
- Case: SOT-523, Molded Plastic
- Terminals: Solderable per MIL-STD-202, Method 208
- Polarity: See Diagram
- Marking: See Diagram
- Weight: 0.002 grams (approx.)
- Ordering Information, see Sheet 2



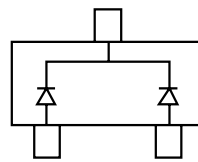
SOT-523			
Dim	Min	Max	Typ
A	0.15	0.30	0.22
B	0.75	0.85	0.80
C	1.45	1.75	1.60
D	—	—	0.50
G	0.90	1.10	1.00
H	1.50	1.70	1.60
J	0.00	0.10	0.05
K	0.60	0.80	0.75
L	0.10	0.30	0.22
M	0.10	0.20	0.12
N	0.45	0.65	0.50
<b>All Dimensions in mm</b>			



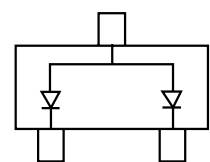
BAS70T Marking: 7C



BAS70T-04 Marking: 7D



BAS70T-05 Marking: 7E



BAS70T-06 Marking: 7F

**Maximum Ratings and Electrical Characteristics, Single Diode @ T<sub>A</sub> = 25°C unless otherwise specified**

Characteristic	Symbol	BAS70T	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V <sub>RRM</sub> V <sub>RWM</sub> V <sub>R</sub>	70	V
RMS Reverse Voltage	V <sub>R(RMS)</sub>	49	V
Forward Continuous Current	I <sub>F</sub>	70	mA
Non-Repetitive Peak Forward Surge Current @ t <sub>p</sub> < 1.0s	I <sub>FSM</sub>	100	mA
Power Dissipation (Note 1)	P <sub>d</sub>	150	mW
Thermal Resistance Junction to Ambient Air (Note 1)	R <sub>θJA</sub>	833	°C/W
Operating Junction Temperature Range	T <sub>j</sub>	-55 to +125	°C
Storage Temperature Range	T <sub>STG</sub>	-65 to +150	°C

**Electrical Ratings @ T<sub>A</sub> = 25°C unless otherwise specified**

Characteristic	Symbol	Min	Max	Unit	Test Condition
Reverse Breakdown Voltage (Note 2)	V <sub>(BR)R</sub>	70	—	—	I <sub>R</sub> = 10μA
Forward Voltage	V <sub>FM</sub>	—	410 1000	mV	t <sub>p</sub> < 300μs, I <sub>F</sub> = 1.0mA t <sub>p</sub> < 300μs, I <sub>F</sub> = 15mA
Peak Reverse Current	I <sub>RM</sub>	—	100	nA	t <sub>p</sub> < 300μs, V <sub>R</sub> = 50V
Junction Capacitance	C <sub>j</sub>	—	2.0	pF	V <sub>R</sub> = 0V, f = 1.0MHz
Reverse Recovery Time	t <sub>rr</sub>	—	5.0	ns	I <sub>F</sub> = I <sub>R</sub> = 10mA to I <sub>R</sub> = 1.0mA, I <sub>rr</sub> = 0.1 x I <sub>R</sub> , R <sub>L</sub> = 100Ω

Notes: 1. Device mounted on FR-4 PC board with recommended pad layout, minimum.  
2. Test period < 3000μs.

**Ordering Information** (Note 3)

Device	Packaging	Shipping
BAS70T-7	SOT-523	3000/Tape & Reel
BAS70T/-04T-7	SOT-523	3000/Tape & Reel
BAS70T/-05T-7	SOT-523	3000/Tape & Reel
BAS70T/-06T-7	SOT-523	3000/Tape & Reel

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

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