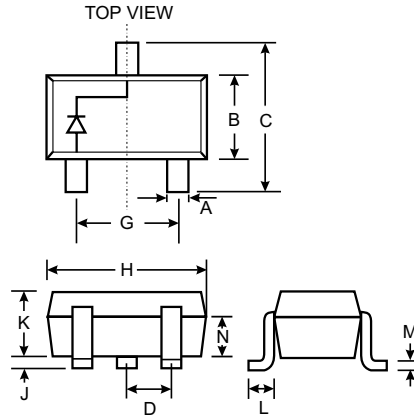


**Features**

- Ultra-Small Surface Mount Package
- Fast Switching Speed
- For General Purpose Switching Applications
- High Conductance

**Mechanical Data**

- Case: SOT-523, Molded Plastic
- Terminals: Solderable per MIL-STD-202, Method 208
- Polarity: See Diagram
- Marking: T3
- Weight: 0.002 grams (approx.)



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			

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

Characteristic	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	250	V
Working Peak Reverse Voltage DC Blocking Voltage	V <sub>RWM</sub> V <sub>R</sub>	200	V
RMS Reverse Voltage	V <sub>R(RMS)</sub>	141	V
Forward Continuous Current	I <sub>FM</sub>	400	mA
Average Rectified Output Current	I <sub>O</sub>	200	mA
Non-Repetitive Peak Forward Surge Current @ t = 1.0μs @ t = 1.0s	I <sub>FSM</sub>	2.5 0.5	A
Repetitive Peak Forward Surge Current	I <sub>FRM</sub>	625	mA
Power Dissipation (Note 1)	P <sub>d</sub>	150	mW
Thermal Resistance Junction to Ambient (Note 1)	R <sub>θJA</sub>	833	°C/W
Operating and Storage Temperature Range	T <sub>j</sub> , T <sub>STG</sub>	-65 to +150	°C

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

Characteristic	Symbol	Min	Max	Unit	Test Condition
Maximum Forward Voltage	V <sub>FM</sub>	—	1.0 1.25	V	I <sub>F</sub> = 100mA I <sub>F</sub> = 200mA
Maximum Peak Reverse Current @ Rated DC Blocking Voltage	I <sub>RM</sub>	—	100 15	nA μA	T <sub>j</sub> = 25°C T <sub>j</sub> = 100°C
Junction Capacitance	C <sub>j</sub>	—	5.0	pF	V <sub>R</sub> = 0, f = 1.0MHz
Reverse Recovery Time	t <sub>rr</sub>	—	50	ns	I <sub>F</sub> = I <sub>R</sub> = 30mA, I <sub>rr</sub> = 0.1 x I <sub>R</sub> , R <sub>L</sub> = 100Ω

**Ordering Information (Note 2)**

Device	Packaging	Shipping
BAS21T-7	SOT-523	3000/Tape & Reel

Notes: 1. Device mounted on FR-4 PC board with recommended pad layout, minimum.  
2. For Packaging Details, go to our website at <http://www.diodes.com/datasheets/ap02007.pdf>.

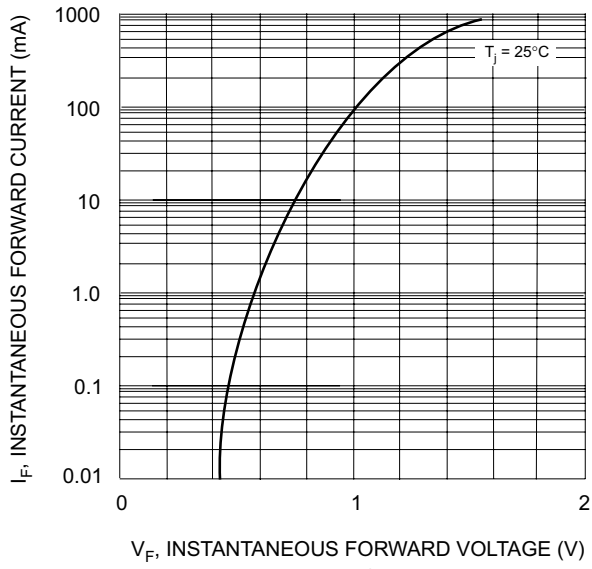


Fig. 1 Forward Characteristics

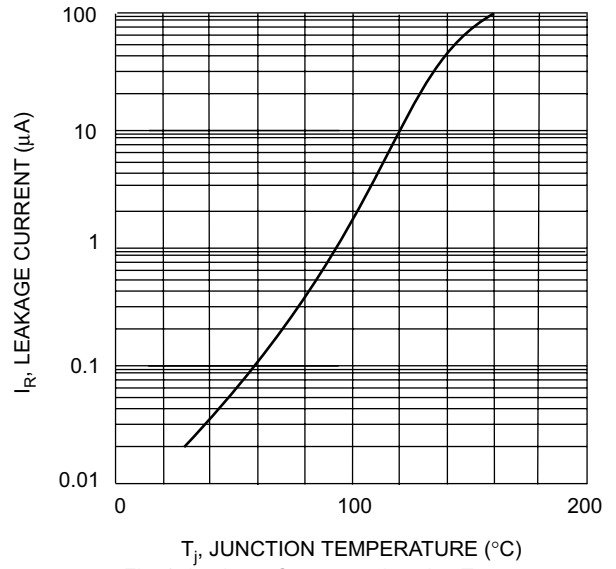


Fig. 2 Leakage Current vs Junction Temperature