

Surface Mount Switching Diodes

 Lead(Pb)-Free

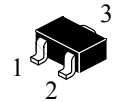
Features:

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

Mechanical Data:

- * Terminals: Solderable per MIL-STD-202, Method 208
- * Polarity: See Diagrams Page.2
- * Marking: See Diagrams Page.2
- * Weight: 0.002 grams (approx)

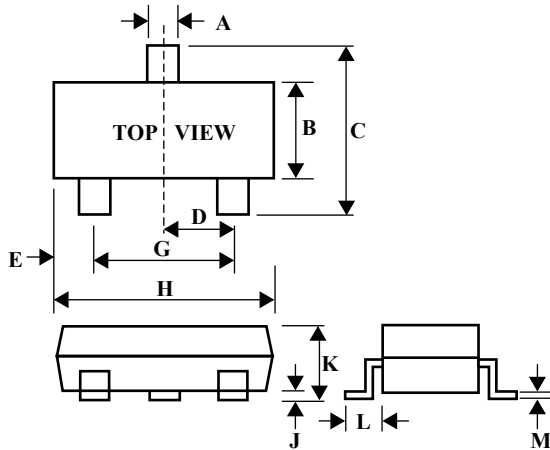
SWITCHING DIODES
150 mAMPERES
75 VOLTS



SOT-523(SC-75)

SOT-523 Outline Dimensions (SC-75)

Unit:mm



SC-75		
Dim	Min	Max
A	0.30	0.50
B	0.70	0.90
C	1.45	1.75
D	-	0.50
E	0.15	0.40
G	0.80	1.00
H	1.40	1.80
J	0.00	0.10
K	0.70	1.00
L	0.37	0.48
M	0.10	0.25


Maximum Ratings (T_A=25°C Unless otherwise noted)

Characteristic	Symbol	Value	Unit
Non-Repetitive Peak reverse voltage	V _{RM}	100	V
Peak Repetitive Reverse Voltage	V _{RRM}	75	V
Working Peak Reverse Voltage	V _{RWM}		
DC Blocking Voltage	V _R		
RMS Reverse Voltage	V _{R(RMS)}	53	V
Forward Continuous Current	I _{FM}	300	mA
Average Rectified Output Current	I _O	150	mA
Peak Forward Surge Current @t=1.0μS	I _{FSM}	2.0	A
@t=1.0S		1.0	
Power Dissipation	P _d	200	mW
Thermal Resistance	R _{θJA}	625	°C/W
Junction temperature	T _j	150	°C
Storage Temperature Range	T _{STG}	-65 to + 150	°C

Electrical Characteristics (T_A=25°C Unless otherwise noted)

Characteristic	Symbol	Min	Max	Unit
Reverse Breakdown Voltage I _R =1μA	V _{(BR)R}	75	-	V
Forward Voltage I _F =1.0mA I _F =10mA I _F =50mA I _F =150mA	V _F	-	715 855 1000 1250	mV
Total Capacitance V _R =0V, f=1.0MHz	C _T	-	2	Pf
Reverse Current V _R =75V V _R =20V	I _R	-	1.0 0.025	μA
Reverse Recover Time I _F =I _R =10mA, I _{rr} =0.1 x I _R , R _L =100Ω	T _{rr}	-	4.0	nS

Device Marking

Item	Marking	Equivalent Circuit diagram
BAS16T	A2	

Typical Characteristics

BAS16T

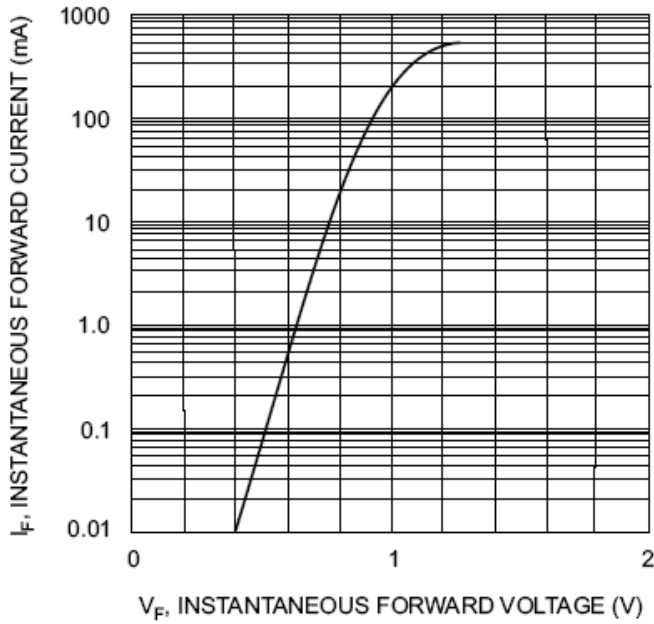


Fig. 1 Forward Characteristics

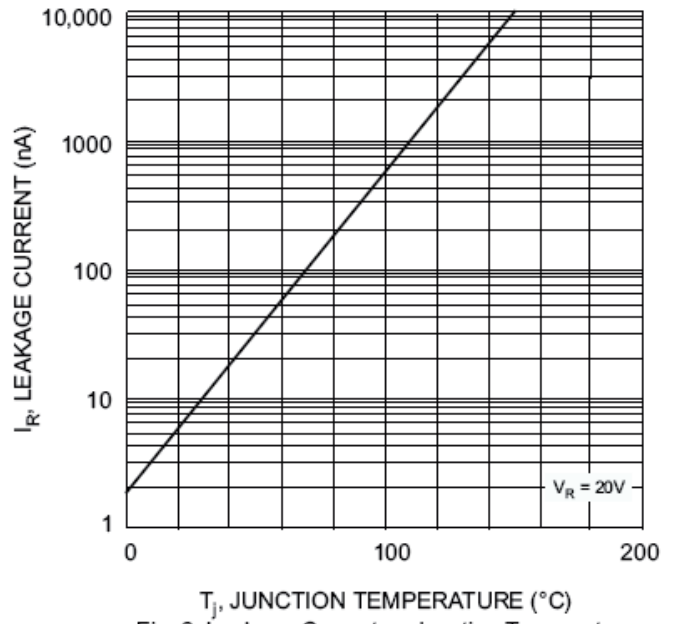


Fig. 2 Leakage Current vs Junction Temperature