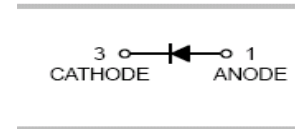




### FEATURES

- Ultra-Small surface mount package.
- Fast switching speed.
- For general purpose switching applications.
- High conductance.



### APPLICATIONS

- General purpose switching application.

**SOT-523**

### ORDERING INFORMATION

Type No.	Marking	Package Code
BAS16T	A2	SOT-523

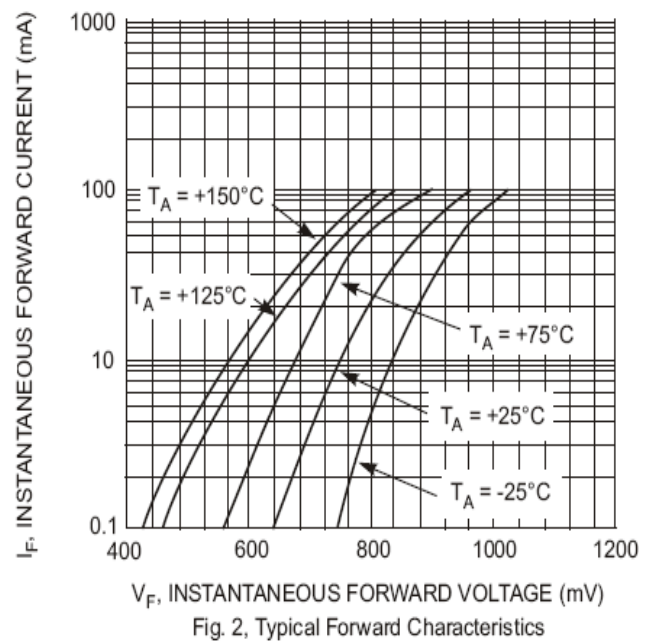
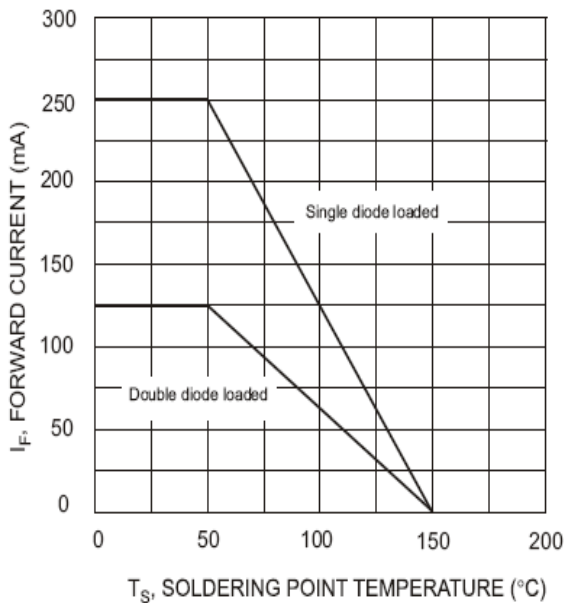
none is for Lead Free package;  
 "G" is for Halogen Free package.

### MAXIMUM RATING @ Ta=25°C unless otherwise specified

Symbol	Parameter	Value	Units
V <sub>RRM</sub>	Peak repetitive reverse voltage	85	V
V <sub>RWM</sub>	Working peak reverse voltage		
V <sub>R</sub>	DC reverse voltage		
V <sub>R(RMS)</sub>	RMS reverse voltage	60	V
I <sub>F</sub>	Forward continuous current	single diode	155
		double diode	75
I <sub>FRM</sub>	Repetitive peak forward current	500	mA
I <sub>FSM</sub>	Non-repetitive peak forward surge current	@t=1.0μs	4.0
		@t=1.0ms	1.0
		@t=1.0s	0.5
P <sub>d</sub>	Power dissipation	150	mW
R <sub>θJA</sub>	Thermal resistance junction to ambient	833	°C/W
T <sub>j</sub> , T <sub>stg</sub>	Junction and Storage Temperature	-65 to +150	°C

**ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified**

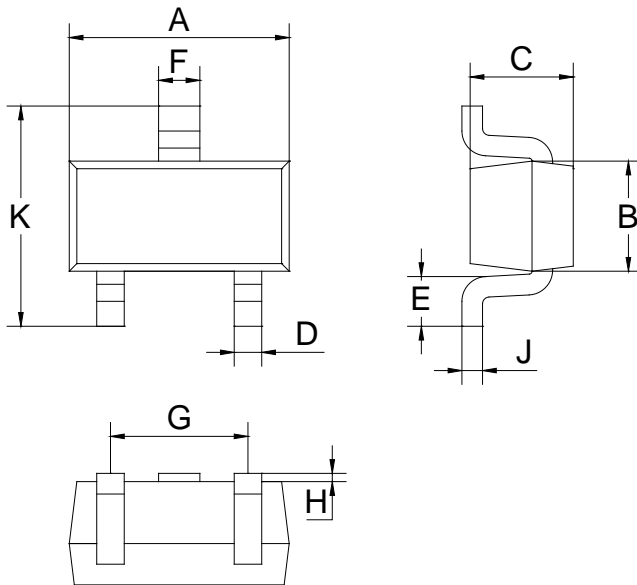
Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Reverse breakdown voltage	$V_{(BR)R}$	$I_R=100\mu A$	85		V
Leakage current	$I_R$	$V_R=75V$		2.0	$\mu A$
		$V_R=75V, T_j=150^\circ C$		100	$\mu A$
		$V_R=25V, T_j=150^\circ C$		60	$\mu A$
		$V_R=25V$		30	nA
Forward voltage	$V_F$	$I_F=1.0mA$		0.715	V
		$I_F=10mA$		0.855	
		$I_F=50mA$		1.0	
		$I_F=150mA$		1.25	
Transition frequency	$f_T$	$V_{CE}=5V, I_C=10mA, f=100KHz$	100		MHz
Typical total capacitance	$C_T$	$V_R=0V, f=1MHz$		1.5	pF
Reverse recovery Time	$t_{rr}$	$I_F=I_R=10mA, I_{rr}=0.1 \cdot I_R, R_L=100\Omega$		4.0	ns

**TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified**




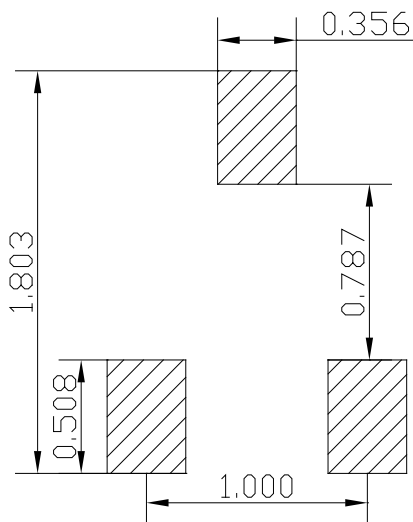
## PACKAGE OUTLINE

Plastic surface mounted package



SOT-523		
Dim	Min	Max
A	1.50	1.70
B	0.75	0.85
C	0.60	0.80
D	0.15	0.30
E	0.30	0.40
F	0.25	0.40
G	0.90	1.10
H	0.02	0.10
J	0.08	0.18
K	1.45	1.75
All Dimensions in mm		

## SOLDERING FOOTPRINT



Unit : mm

## PACKAGE INFORMATION

Device	Package	Shipping
BAS16T	SOT-523	3000/Tape&Reel