


## Surface Mount Fast Switching Diode

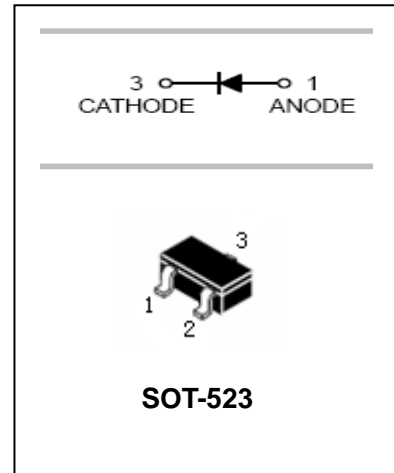
## BAS21T

### FEATURES

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

### APPLICATIONS

- General purpose switching application.



### ORDERING INFORMATION

Type No.	Marking	Package Code
BAS21T	T3	SOT-523

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

Symbol	Parameter	Value	Units
$V_{RRM}$	Peak repetitive reverse voltage	250	V
$V_{RWM}$	Working peak reverse voltage	200	
$V_R$	DC reverse voltage	200	
$V_{R(RMS)}$	RMS reverse voltage	141	V
$I_O$	Average rectified output current	200	mA
$I_{FRM}$	Repetitive peak forward current	625	mA
$I_{FSM}$	Non-repetitive peak forward surge current	@t=1.0μs 2.5 @t=1.0s 0.5	A
$P_d$	Power dissipation	150	mW
$R_{\theta JA}$	Thermal resistance junction to ambient	833	°C/W
$T_j, T_{stg}$	Junction and Storage Temperature	-65 to +150	°C

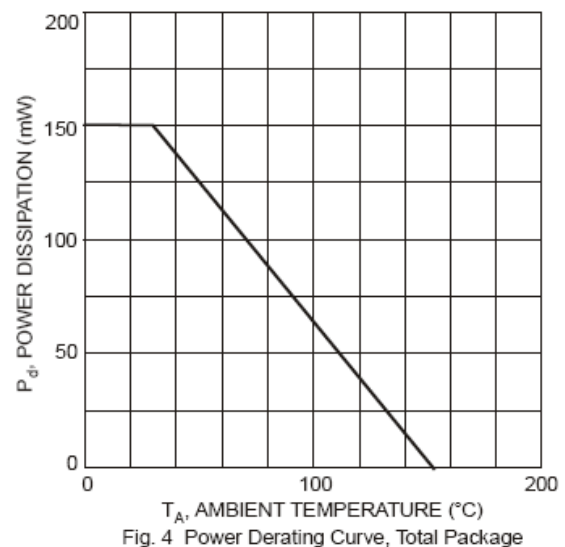
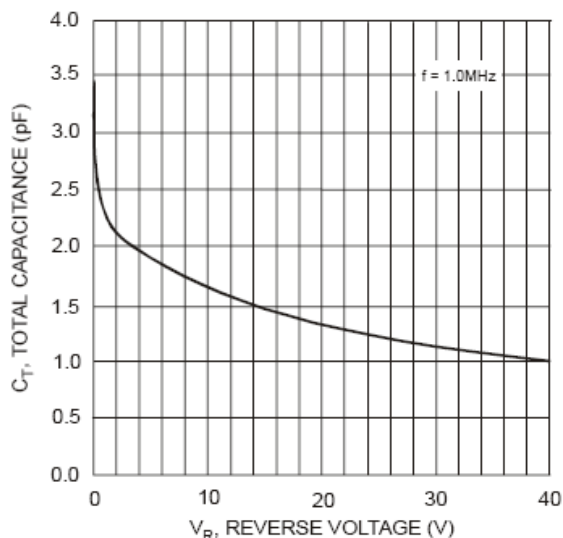
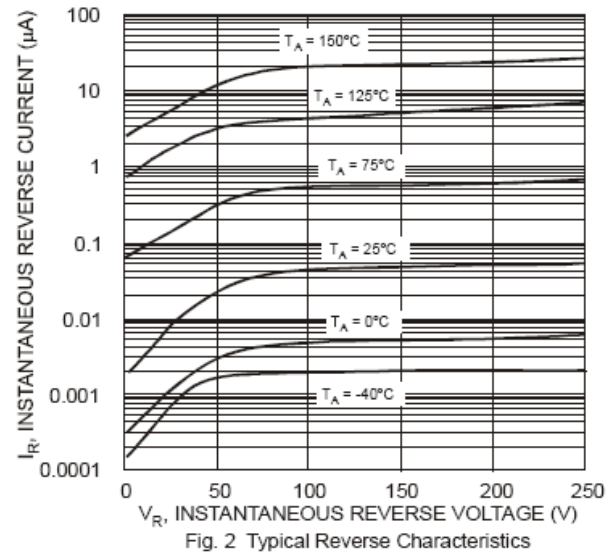
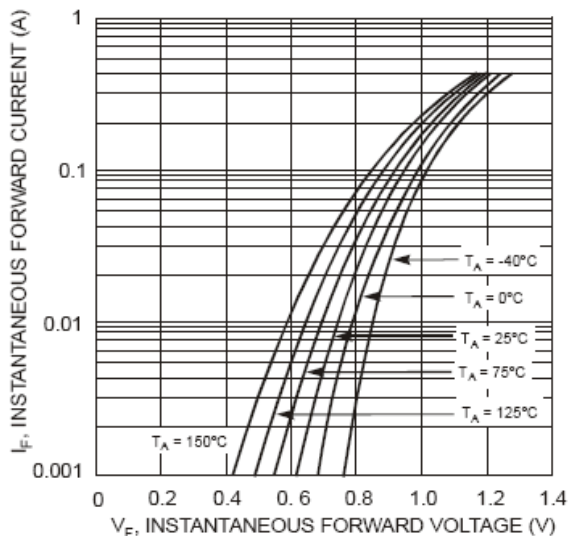
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### ELECTRICAL CHARACTERISTICS @ $T_a=25^\circ\text{C}$ unless otherwise specified

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Reverse breakdown voltage	$V_{(BR)R}$	$I_R=100\mu\text{A}$	250		V
Leakage current	$I_R$	$V_R=200\text{V}, T_j=25^\circ\text{C}$ $V_R=200\text{V}, T_j=100^\circ\text{C}$		100 15	nA $\mu\text{A}$
Forward voltage	$V_F$	$I_F=100\text{mA}$ $I_F=200\text{mA}$		1.0 1.25	V
Typical total capacitance	$C_T$	$V_R=0\text{V}, f=1\text{MHz}$		5.0	pF
Reverse recovery Time	$t_{rr}$	$I_F=I_R=30\text{mA}, I_{rr}=0.1 \cdot I_R, R_L=100\Omega$		50	ns

### TYPICAL CHARACTERISTICS @ $T_a=25^\circ\text{C}$ unless otherwise specified



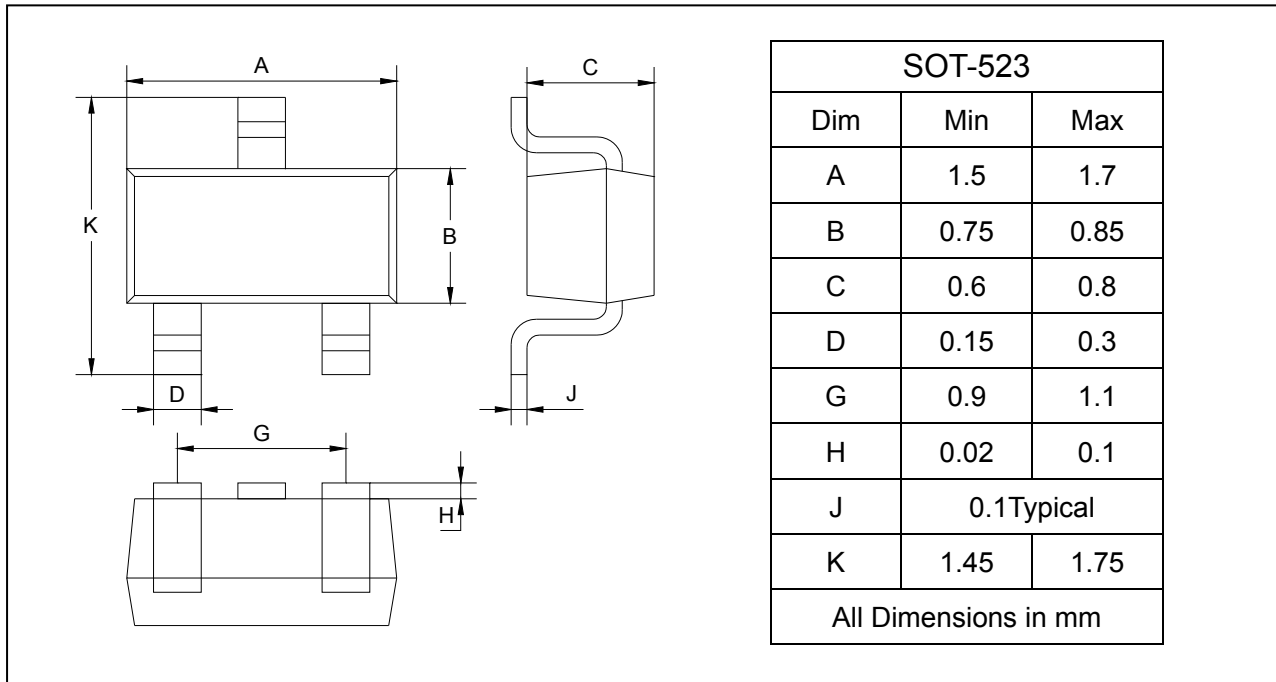
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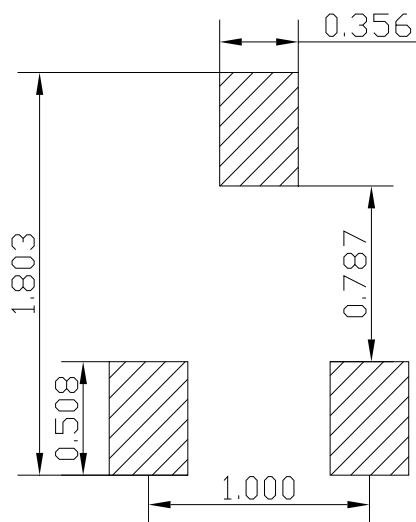
### PACKAGE OUTLINE

Plastic surface mounted package

SOT-523



### SOLDERING FOOTPRINT



Unit : mm

### PACKAGE INFORMATION

Device	Package	Shipping
BAS21T	SOT-523	3000/Tape&Reel