

Surface Mount Fast Switching Diode

BAS21T

FEATURES

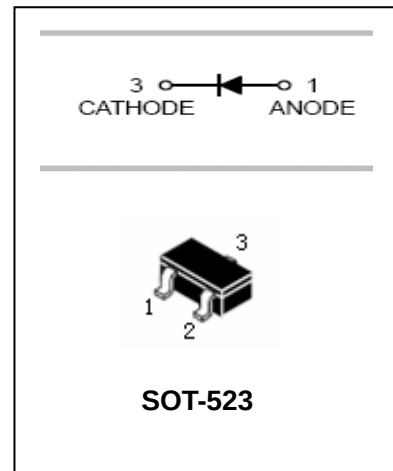
- Ultra-Small surface mount package.  Lead-free
- Fast switching speed.
- For general purpose switching applications.
- High conductance.

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_{FM}	Forward continuous current(MAX.)	400	mA
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 @t=1.0s	2.5 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	-65~150	°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 μA
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

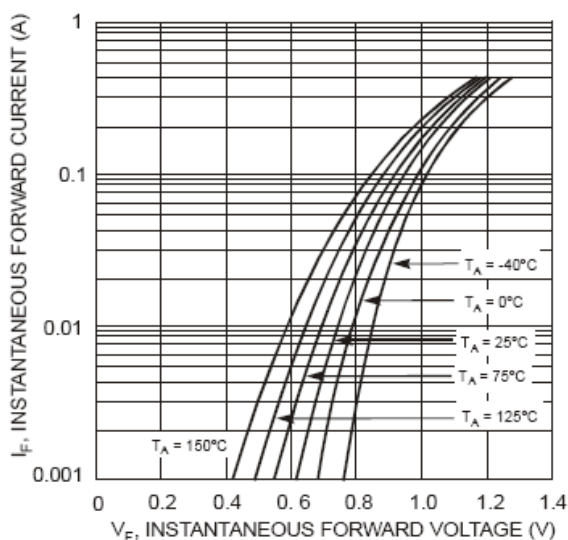


Fig. 1 Typical Forward Characteristics

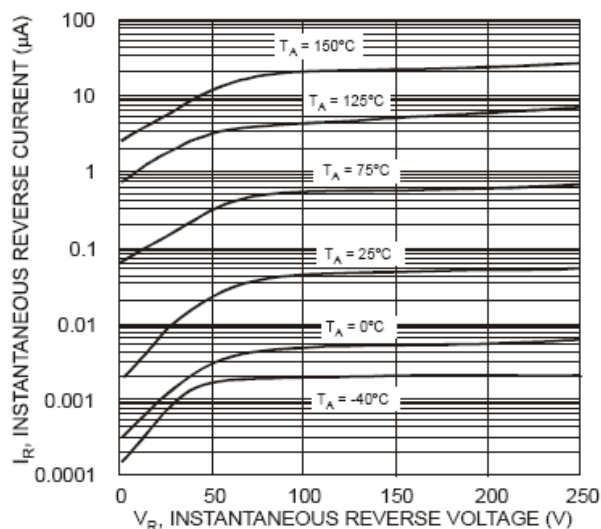


Fig. 2 Typical Reverse Characteristics

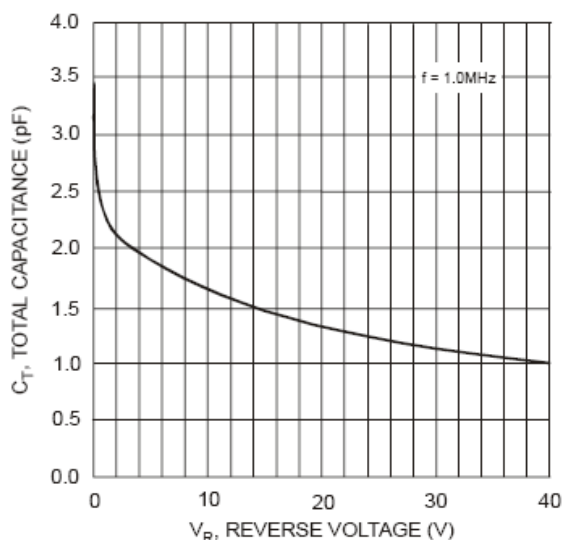


Fig. 3 Typical Capacitance vs. Reverse Voltage

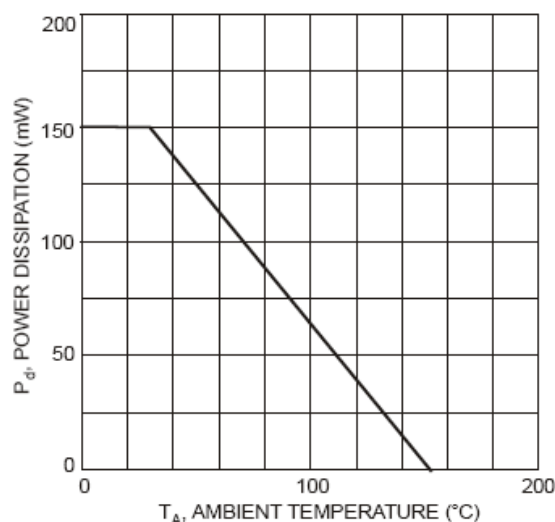


Fig. 4 Power Derating Curve, Total Package

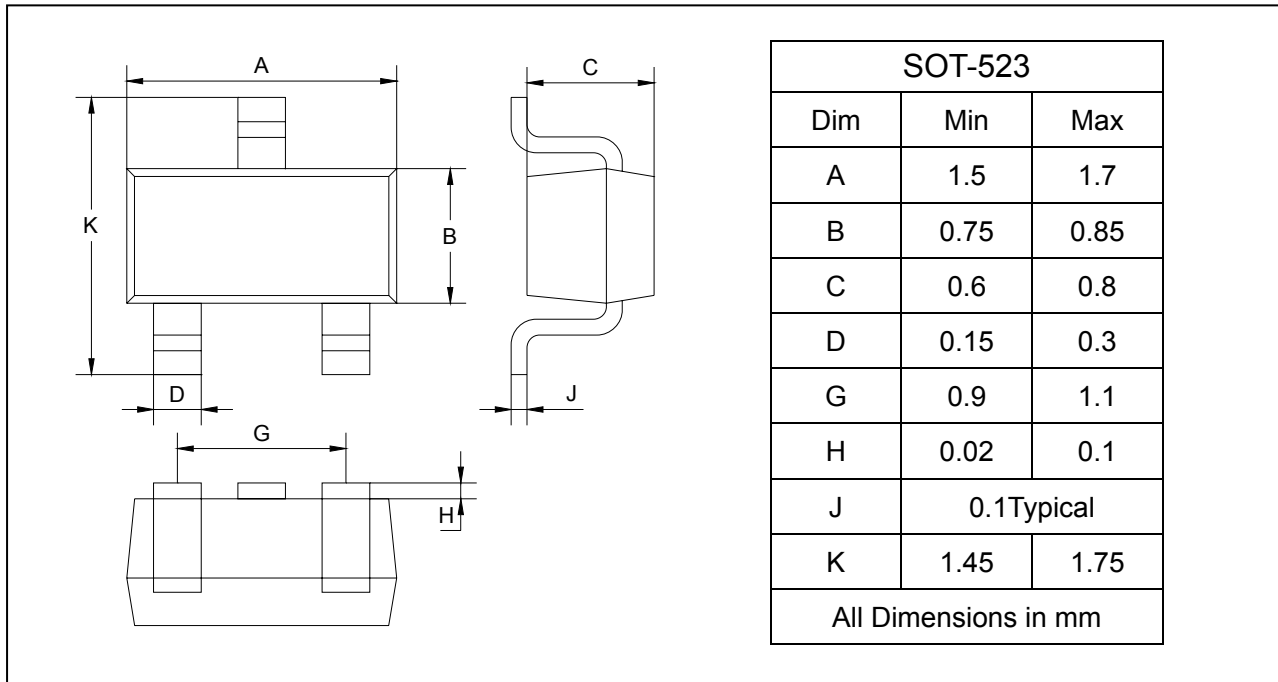
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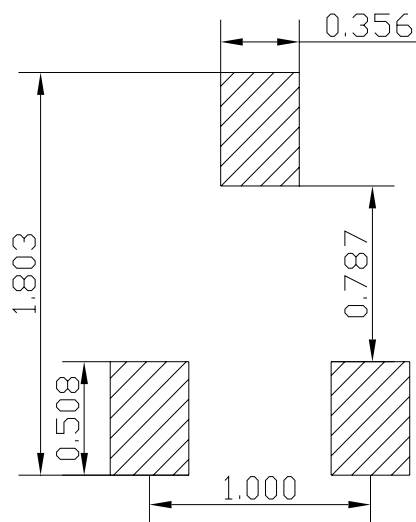
PACKAGE OUTLINE

Plastic surface mounted package

SOT-523



SOLDERING FOOTPRINT



Unit : mm

PACKAGE INFORMATION

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