

Surface Mount Schottky Barrier Diode BAS70T/-04T/-05T/-06T

FEATURES

- Low turn-on voltage.
- Fast switching.
- Ultra-small surface mount package.
- PN junction guard ring for transient and ESD protection.

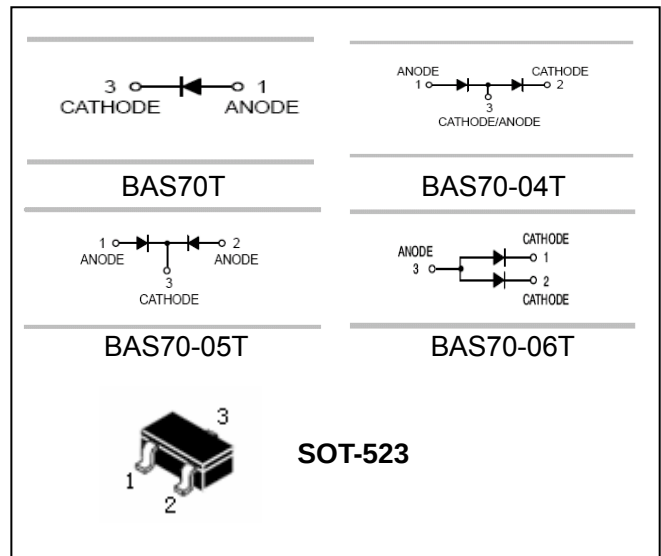


Lead-free

APPLICATIONS

- Schottky barrier diodes.

ORDERING INFORMATION



Type No.	Marking	Package Code
BAS70T	7C	SOT-523
BAS70-04T	7D	SOT-523
BAS70-05T	7E	SOT-523
BAS70-06T	7F	SOT-523

MAXIMUM RATING @ Ta=25°C unless otherwise specified

Symbol	Parameter	Value	Units
V_{RRM}	Peak repetitive reverse voltage	70	V
V_{RWM}	Working peak reverse voltage		
V_R	DC reverse voltage		
$V_{R(RMS)}$	RMS reverse voltage	70	V
I_F	Forward continuous voltage	200	mA
I_{FSM}	Non-repetitive peak forward surge current @t<1.0s	100	mA
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	$V_{(BR)R}$	$I_R=10\mu\text{A}$	70		V
Leakage current	I_R	$V_R=50\text{V}, t_p<300\mu\text{s}$		100	nA
Forward voltage	V_F	$I_F=1.0\text{mA}, t_p<300\mu\text{s}$ $I_F=15\text{mA}, t_p<300\mu\text{s}$		410 1000	mV
Typical total capacitance	C_T	$V_R=0\text{V}, f=1\text{MHz}$		2.0	pF
Reverse recovery Time	t_{rr}	$I_F=I_R=10\text{mA}, I_{rr}=0.1 \cdot I_R, R_L=100\Omega$		5.0	ns

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

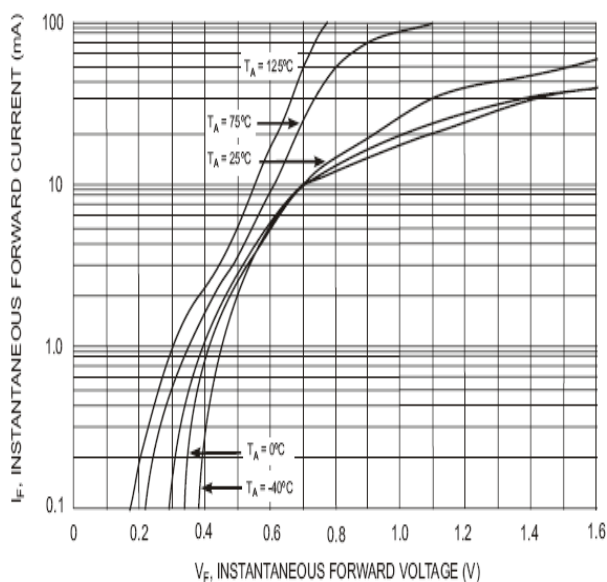


Fig. 1 Typical Forward Characteristics

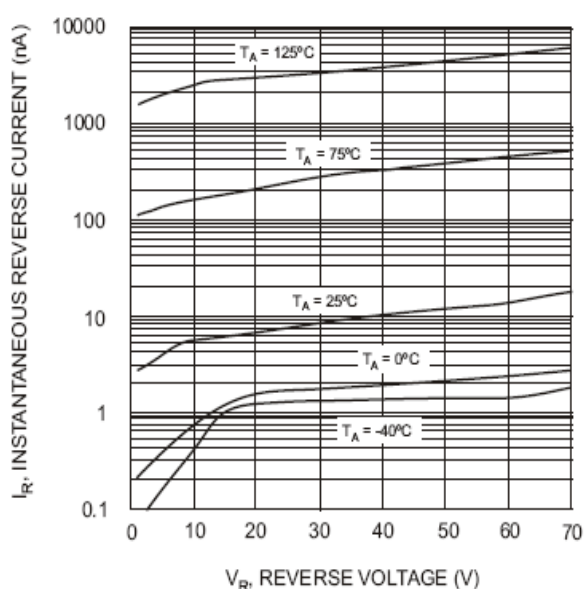


Fig. 2 Typical Reverse Characteristics

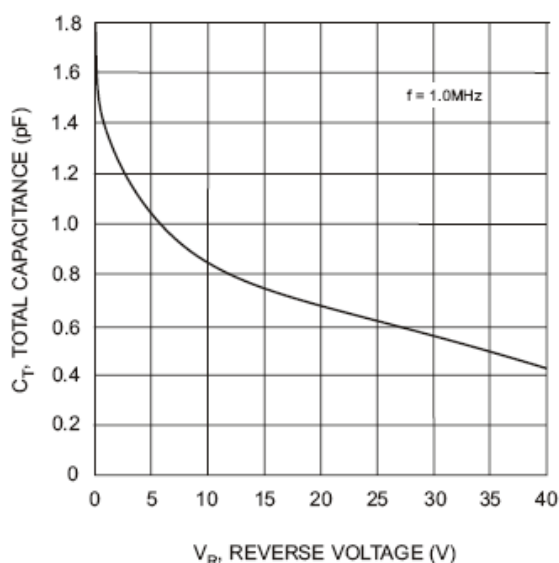


Fig. 3 Typical Capacitance

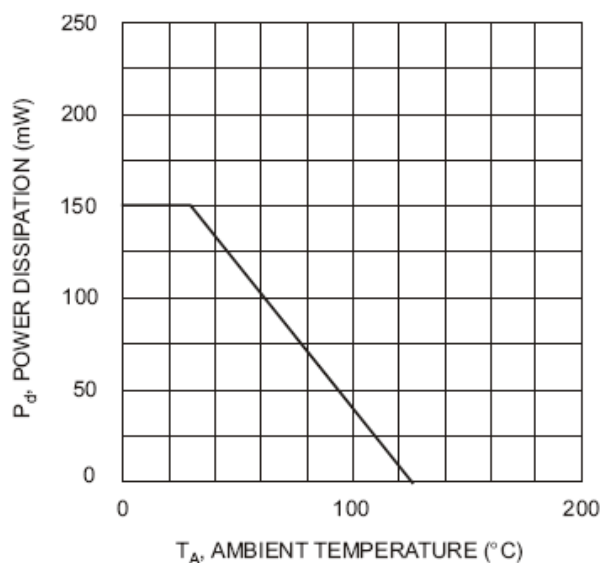


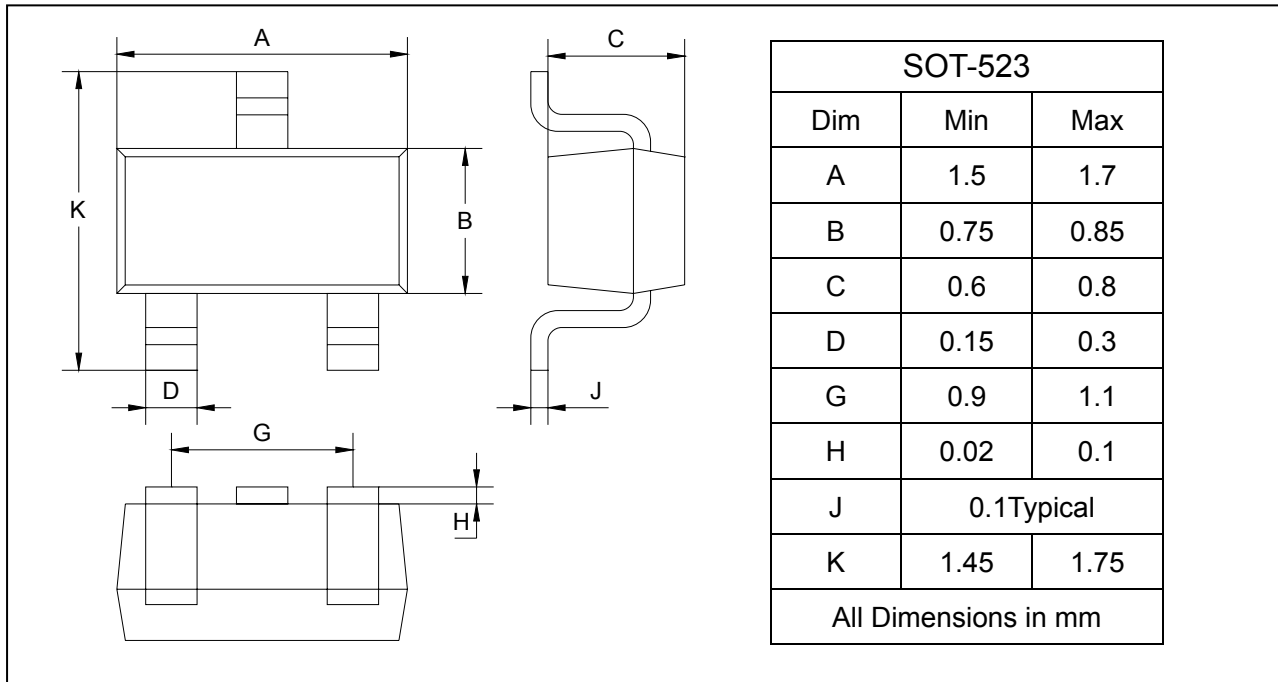
Fig. 4 Power Derating Curve, Total Package

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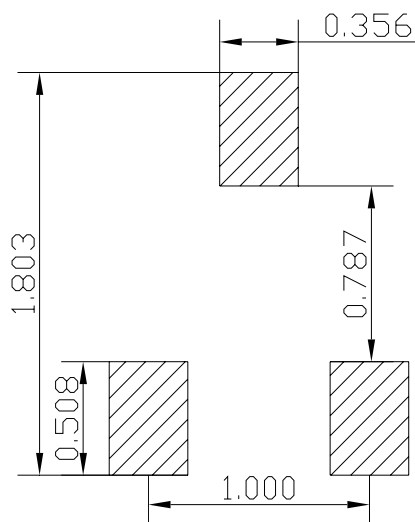
PACKAGE OUTLINE

Plastic surface mounted package

SOT-523



SOLDERING FOOTPRINT



Unit : mm

PACKAGE INFORMATION

Device	Package	Shipping
BAS70T/-04T/-05T/06T	SOT-523	3000/Tape&Reel