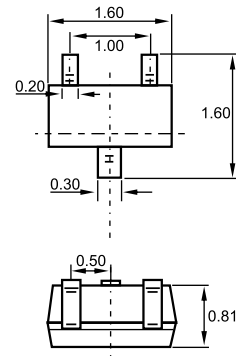




SOT-523



Dimensions in inches and (millimeters)

Features

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

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

ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Reverse breakdown voltage	$V_{(BR)R}$	$I_R=10\mu A$	70		V
Leakage current	I_R	$V_R=50V, t_p < 300\mu s$		100	nA
Forward voltage	V_F	$I_F=1.0mA, t_p < 300\mu s$ $I_F=15mA, t_p < 300\mu s$		410 1000	mV
Typical total capacitance	C_T	$V_R=0V, f=1MHz$		2.0	pF
Reverse recovery Time	t_{rr}	$I_F=I_R=10mA, I_{rr}=0.1 \cdot I_R, R_L=100\Omega$		5.0	ns

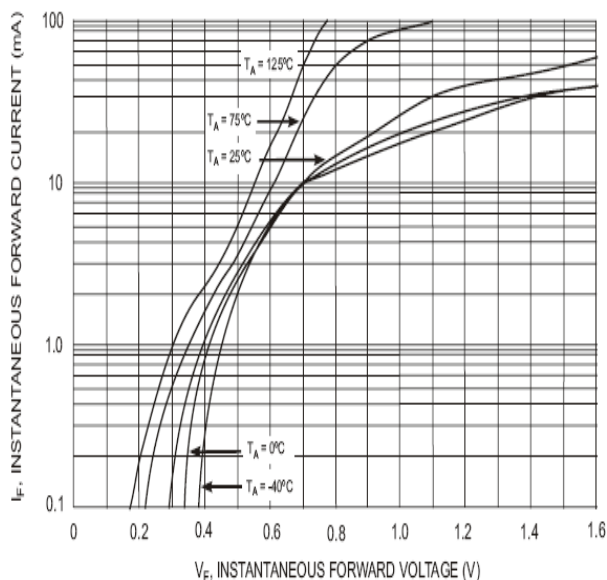
TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified


Fig. 1 Typical Forward Characteristics

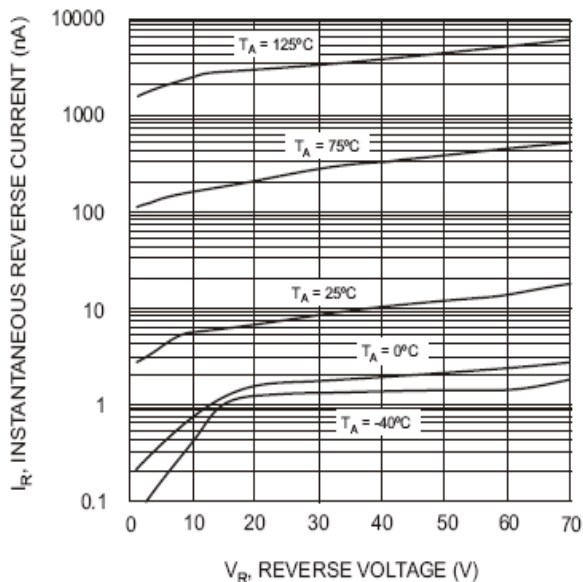


Fig. 2 Typical Reverse Characteristics

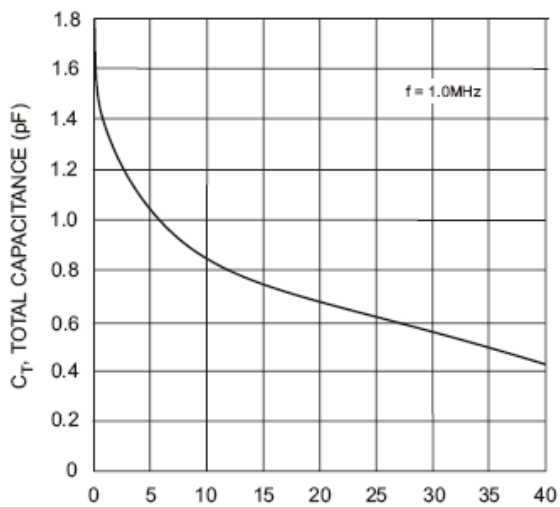


Fig. 3 Typical Capacitance

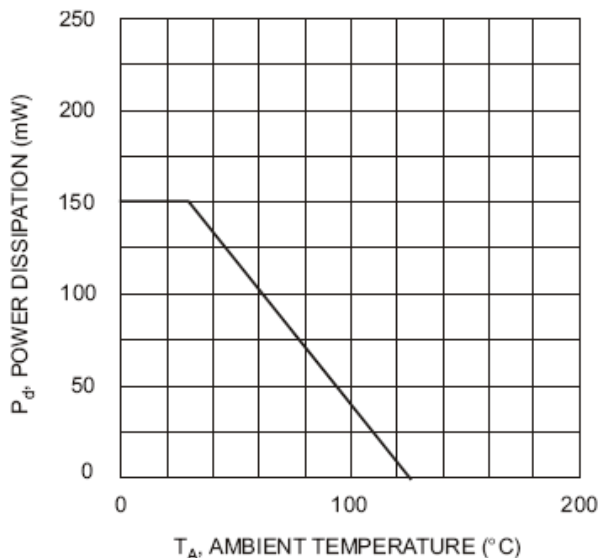


Fig. 4 Power Derating Curve, Total Package