

**SURFACE MOUNT
SCHOTTKY BARRIER DIODE**

**REVERSE VOLTAGE – 70 Volts
FORWARD CURRENT – 0.07 Ampere**

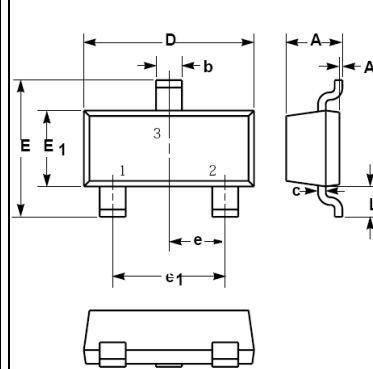
FEATURES

- Extremely Fast Switching Speed
- Low Forward Voltage
- Very Small Conduction Losses

MECHANICAL DATA

- Case: SOT-523 Plastic
- Case Material: “Green” molding compound, UL flammability classification 94V-0, (No Br. Sb. Cl)
- Moisture Sensitivity: Level 1 per J-STD-020D
- Lead Free in RoHS 2002/95/EC Compliant

SOT-523



SOT-523		
Dim.	Min.	Max.
A	0.70	0.90
A1	0.00	0.10
b	0.25	0.325
c	0.10	0.20
D	1.50	1.70
E	1.45	1.75
E1	0.75	0.85
e	0.50 Typ.	
e1	0.90	1.10
L	0.55 Ref.	
Dimensions in millimeter		

Maximum Ratings & Thermal Characteristics @ T_A = 25°C unless otherwise specified

Characteristic	Symbol	BAS70T	BAS70-04T	BAS70-05T	BAS70-06T	Units
Repetitive Peak Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	70				V
Forward Continuous Current	I_{FM}	70				mA
Non-Repetitive Peak Forward Surge Current @ tp<1.0s	I_{FSM}	100				mA
Power Dissipation	P_D	150				mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	833				°C/W
Operating Temperature Range	T_J	125				°C
Storage Temperature Range	T_{STG}	-55~+125				°C

Electrical Characteristics @ T_A = 25°C unless otherwise specified

Characteristic	Test Condition	Symbol	BAS70T	BAS70-04T	BAS70-05T	BAS70-06T	Unit
Reverse Breakdown Voltage	$I_R = 10\mu A$	V_{BR}	70				V
Maximum Forward Voltage	$I_F = 1mA$ $I_F = 15mA$	V_F	410 1000				mV
Maximum DC Reverse Current at Rated DC Blocking Voltage	$V_R = 50V$	I_R	100				nA
Typical Diode Capacitance	$V_R = 0V, f = 1MHz$	C_D	2				pF
Reverse Recovery time	$I_{rr} = 1mA,$ $I_R = I_F = 10mA$ $R_L = 100\Omega$	t_{rr}	5				nS

RATING AND CHARACTERISTIC CURVES
BAS70T, BAS70-04T thru -06T



FIG.1- TYPICAL FORWARD CHARACTERISTICS

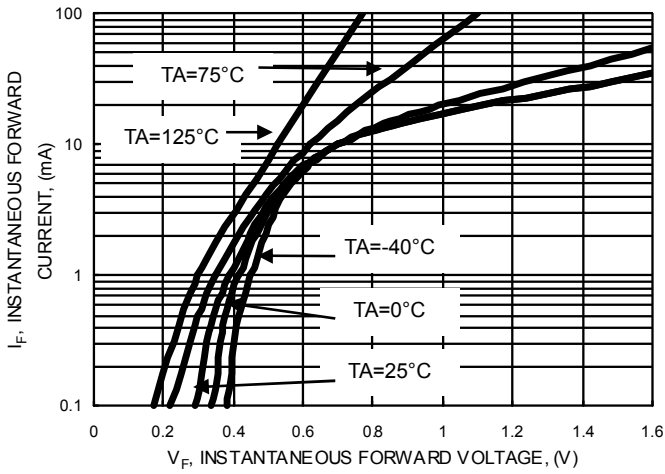


FIG.2- TYPICAL REVERSE CHARACTERISTICS

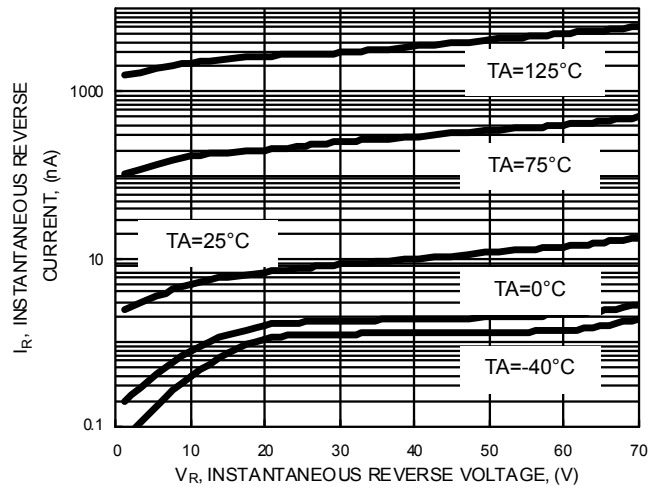


FIG.3- TYPICAL JUNCTION CAPACITANCE

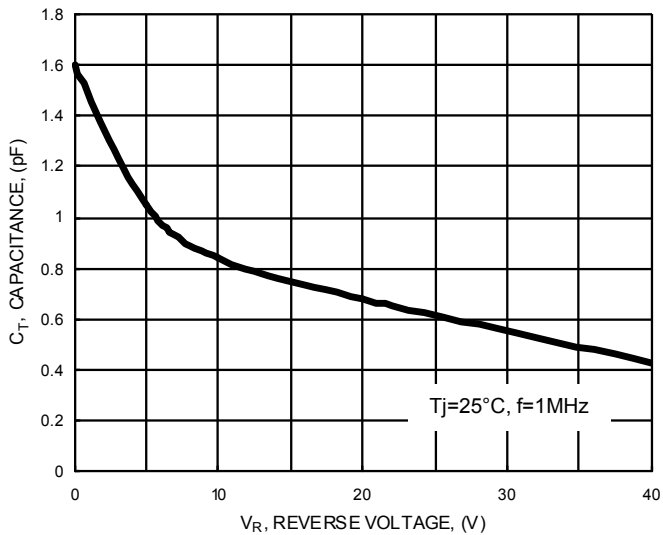
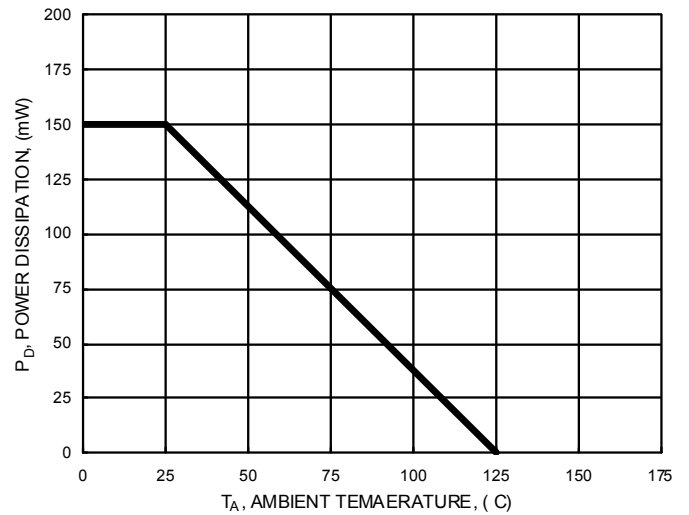


FIG.4- POWER DERATING CURVE



Device Marking :

Device P/N	Marking	Equivalent Circuit Diagram
BAS70T	7C	
BAS70-04T	7D	
BAS70-05T	7E	
BAS70-06T	7F	

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TA=75°C

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TA=0°C

TA=-40°C

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