

BAS40T, BAS40-04T thru -06T

**SURFACE MOUNT
SCHOTTKY BARRIER DIODE**

**REVERSE VOLTAGE – 40 Volts
FORWARD CURRENT – 0.2 Ampere**

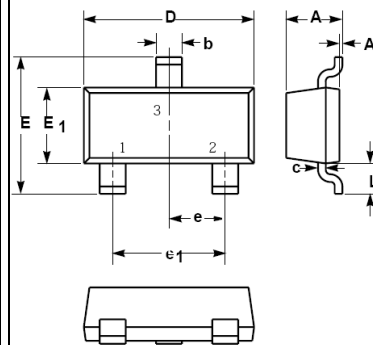
FEATURES

- 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	BAS40T	BAS40-04T	BAS40-05T	BAS40-06T	Units
Repetitive Peak Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V _{RRM} V _{RWM} V _R	40				V
Forward Continuous Current	I _{FM}	200				mA
Forward Surge Current @t<1.0s	I _{FSM}	600				mA
Power Dissipation	P _D	150				mW
Thermal Resistance Junction to Ambient	R _{θJA}	833				°C/W
Operating Temperature Range	T _J	125				°C
Storage Temperature Range	T _{STG}	-65~+125				°C

Electrical Characteristics @ T_A = 25°C unless otherwise specified

Characteristic	Test Condition	Symbol	BAS40T	BAS40T-04T	BAS40T-05T	BAS40T-06T	Unit
Reverse Breakdown Voltage	I _R = 10uA	V _{BR}	40				V
Maximum Forward Voltage	I _F = 1mA I _F = 40mA	V _F	380 1000				mV
Maximum DC Reverse Current at Rated DC Blocking Voltage	V _R = 30V	I _R	200				nA
Typical Diode Capacitance	V _R = 1.0V, f=1MHz	C _D	5				pF
Reverse Recovery time	I _{rr} =1mA, I _R =I _F =10mA R _L =100Ω	t _{rr}	5				nS

RATING AND CHARACTERISTIC CURVES BAS40T, BAS40-04T thru -06T



FIG.1- TYPICAL FORWARD CHARACTERISTICS

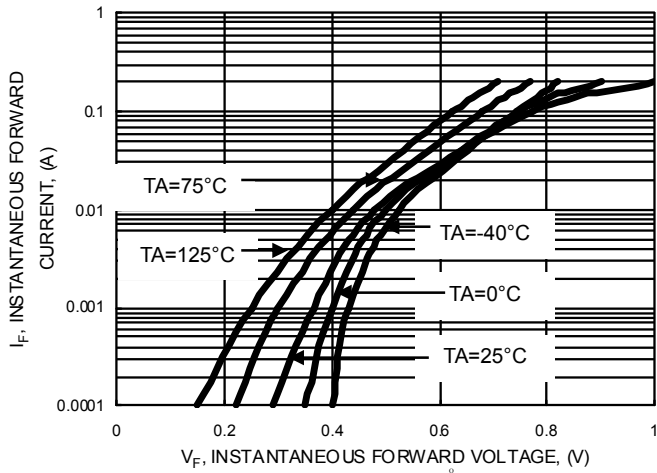


FIG.2- TYPICAL REVERSE CHARACTERISTICS

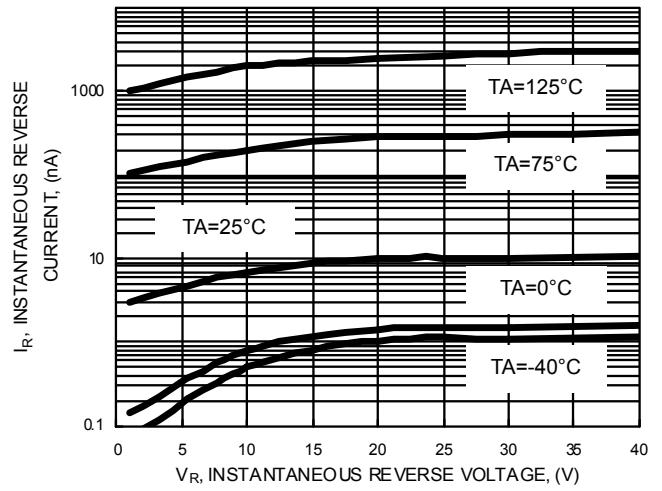


FIG.3- TYPICAL JUNCTION CAPACITANCE

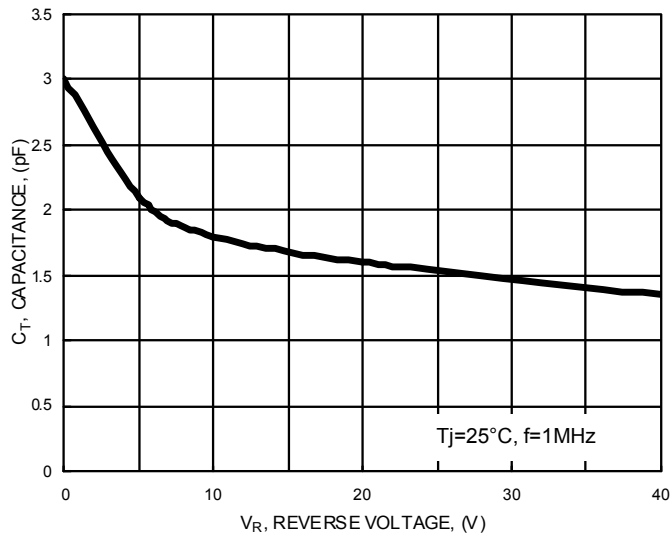
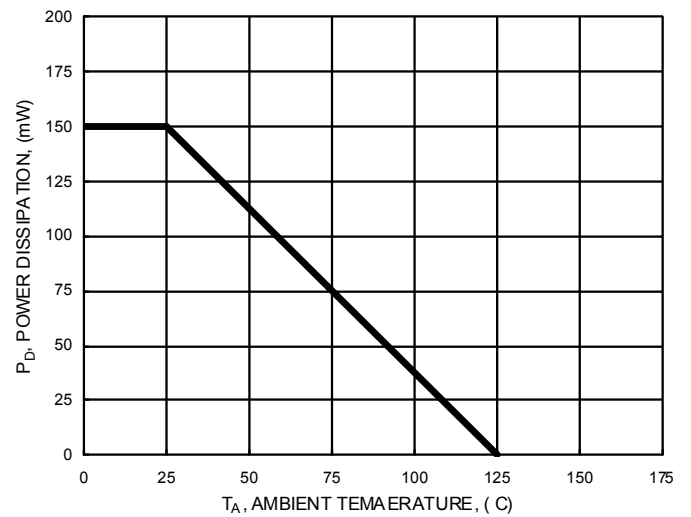


FIG.4- POWER DERATING CURVE



Device Marking :

Device P/N	Marking	Equivalent Circuit Diagram
BAS40T	43	
BAS40-04T	44	
BAS40-05T	45	
BAS40-06T	46	

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