

BAS70 / -04 / -05 / -06

200m Watts Surface Mount Schottky Barrier Diode

SOT-23

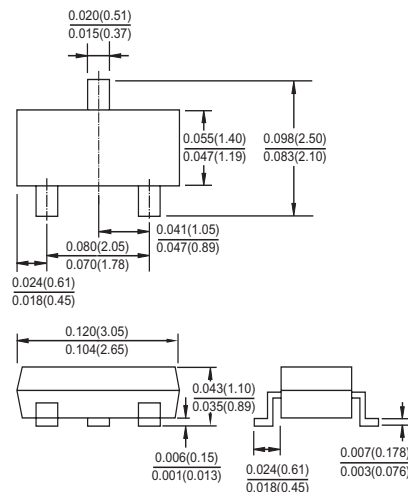


Features

- ◇ Low turn-on voltage
- ◇ Fast switching
- ◇ PN junction guard Ring for transient and ESD protection

Mechanical Data

- ◇ Case: SOT-23, Molded plastic
- ◇ Terminals: Solderable per MIL-STD-202, Method 208
- ◇ Marking & Polarity: See diagram
- ◇ Weight: 0.008 grams



Dimensions in inches and (millimeters)



Maximum Ratings TA=25 °C unless otherwise specified

Type Number	Symbol	BAS70	Units
Peak Repetitive Reverse Voltage	VRRM	70	V
Working Peak Reverse Voltage	VRWM	70	V
DC Blocking Voltage	VR	70	V
RMS Reverse Voltage	VR(RMS)	49	V
Forward Continuous Current (Note 1)	IF	70	mA
Non-Repetitive Peak Forward Surge Current @ t ≤ 1.0s	IFSM	100	mA
Power Dissipation (Note 1)	Pd	200	mW
Thermal Resistance Junction to Ambient Air (Note 1)	RθJA	625	K/W
Operating Junction Temperature Range	Tj	-55 to + 125	°C
Storage Temperature Range	TSTG	-65 to + 150	°C

Electrical Characteristics

Type Number	Symbol	Min	Max	Units
Reverse Breakdown Voltage (Note 2), IR=10uA	V(BR)	70		
Reverse Leakage Current tp<300us, VR=50V	IR	–	100	nA
Forward Voltage Drop tp=300us, IF=1.0mA tp<300us, IF=15mA	VF	–	410 1000	mV
Junction Capacitance VR=0, f=1.0MHz	Cj	–	2.0	pF
Reverse Recovery Time (Note 3)	trr	–	5.0	nS

- Notes:
1. Valid Provided that Terminals are Kept at Ambient Temperature.
 2. Test Period < 3000uS.
 3. Reverse Recovery Test Conditions: IF=IR=10mA, Irr=1.0mA, RL=100Ω.

RATINGS AND CHARACTERISTIC CURVES (BAS70 / -04 / -05 / -06)

FIG.1- POWER DERATING CURVE

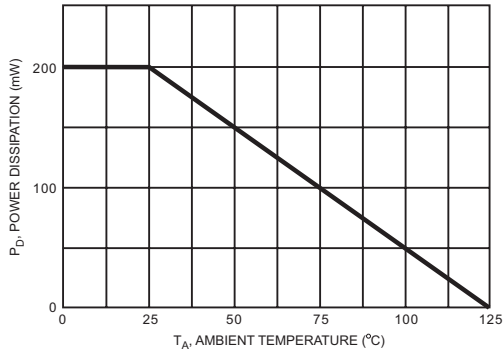


FIG.2- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

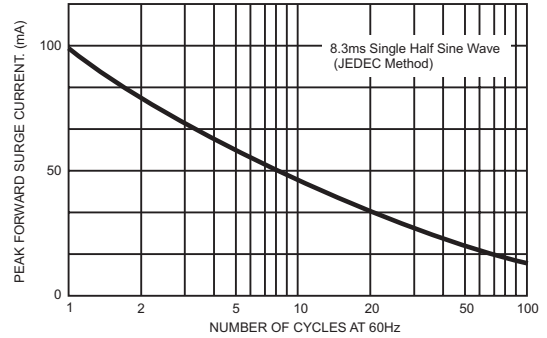


FIG.3- TYPICAL FORWARD CHARACTERISTICS

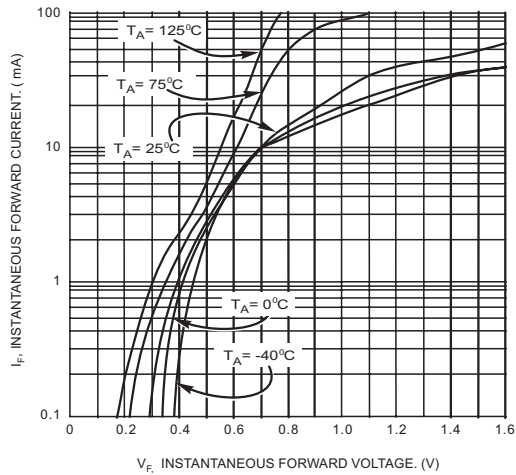


FIG.4- TYPICAL REVERSE CHARACTERISTICS

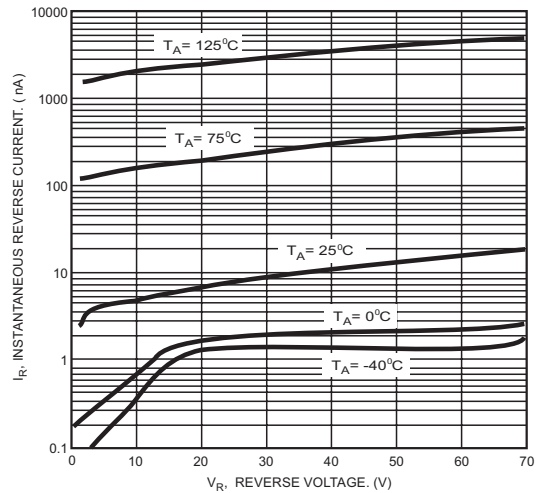


FIG.5- TYPICAL TOTAL CAPACITANCE VS REVERSE VOLTAGE

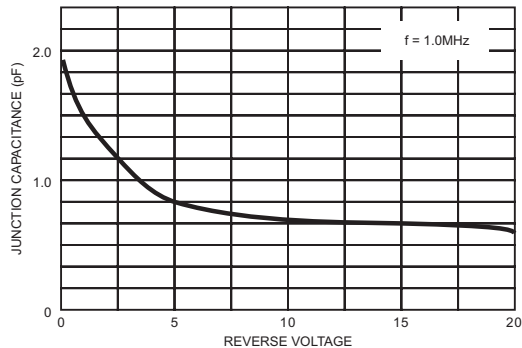


FIG.6- TYPICAL TRANSIENT THERMAL CHARACTERISTICS

