

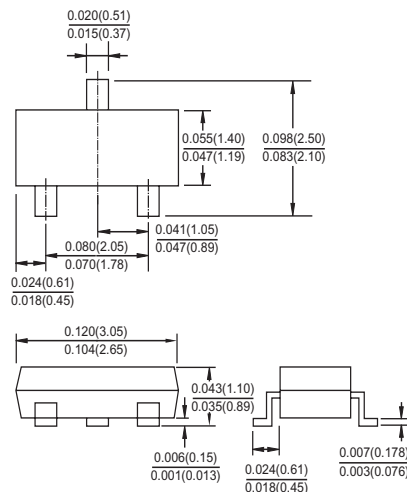


Features

- ◇ 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		
DC Blocking Voltage	VR		
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)	R _{θJA}	625	K/W
Operating Junction Temperature Range	T _J	-55 to + 125	°C
Storage Temperature Range	T _{STG}	-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	V _F	-	410 1000	mV
Junction Capacitance VR=0, f=1.0MHz	C _j	-	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 < 300uS.
 3. Reverse Recovery Test Conditions: IF=IR=10mA, Irr=1.0mA, RL=100Ω.

Small Signal Diode

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

FIG.1- POWER DERATING CURVE

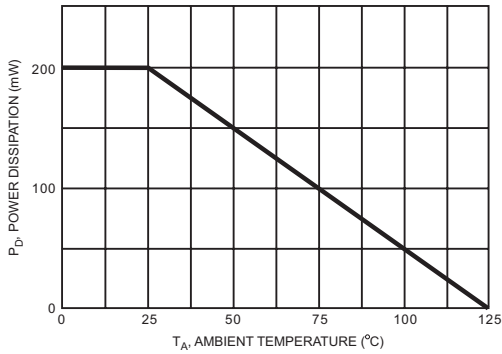


FIG.2- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

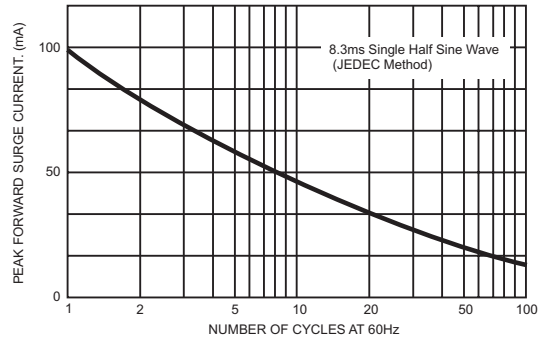


FIG.3- TYPICAL FORWARD CHARACTERISTICS

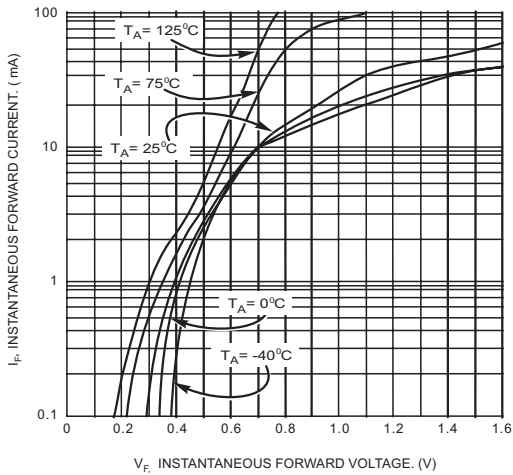


FIG.4- TYPICAL REVERSE CHARACTERISTICS

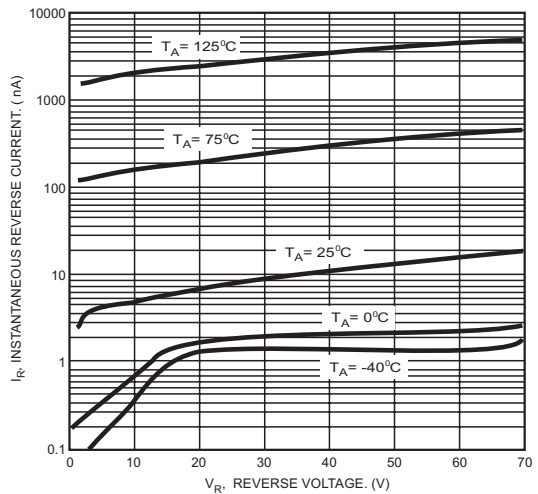


FIG.5- TYPICAL TOTAL CAPACITANCE VS REVERSE VOLTAGE

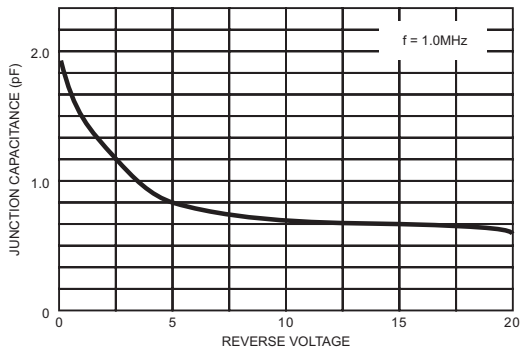
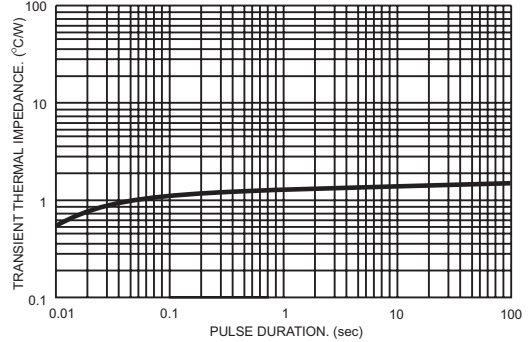
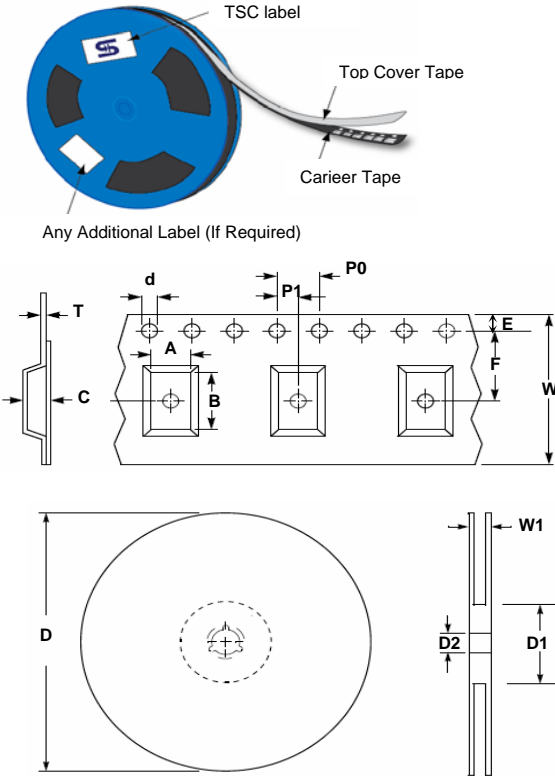


FIG.6- TYPICAL TRANSIENT THERMAL CHARACTERISTICS



Tape & Reel specification



Item	Symbol	Dimension(mm)
Carrier width	A	3.15 ± 0.10
Carrier length	B	2.77± 0.10
Carrier depth	C	1.22 ±0.10
Sprocket hole	d	1.5 ± 0.1
Reel outside diameter	D	178 ± 1
Reel inner diameter	D1	54 Min
Feed hole width	D2	13.0 ± 0.20
Sprocke hole position	E	1.75 ±0.10
Punch hole position	F	3.50 ±0.05
Sprocke hole pitch	P0	4.00 ±0.10
Embossment center	P1	2.00 ±0.05
Overall tape thickness	T	0.22 ± 0.05
Tape width	W	8.00 ±0.20
Reel width	W1	12 Max

