Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

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Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China

Small Signal Product

225mW SMD Switching Diode

FEATURES

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

SOT-23

Pb-Free

RoHS COMPLIANT

MECHANICAL DATA

- Case: SOT- 23, molded plastic
- Terminal: Matte tin plated, lead free, solderable per MIL-STD-202, Method 208 guaranteed
- High temperature soldering guaranteed: 260°C/10s
- Weight: 0.008grams (approximately)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERSTICS (T_A=25°C unless otherwise noted)

PARAMETER		SYMBOL	VALUE	UNIT
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage		V_{RRM} V_{RWM} V_R	70	V
RMS Reverse Voltage		$V_{R(RMS)}$	49	V
Forward Continuous Current	(Note 1)	I_F	70	mA
Non-Repetitive Peak Forward Surge Current	@ t ≦ 1.0 s	I_{FSM}	100	mA
Power Dissipation	(Note 1)	P_D	200	mW
Thermal Resistance Junction to Ambient Air	(Note 1)	$R_{\theta JA}$	625	K/W
Operating Junction Temperature		T_J	-55 to + 125	°C
Storage Temperature Range		T_{STG}	-55 to + 150	°C

PARAMETER		SYMBOL	MIN	MAX	UNIT
Reverse breakdown voltage	I_R = 10 μA	$V_{(BR)}$	70	-	V
Forward voltage	tp=300μs , I_F=1.0mA	V_F	-	410	mV
	tp＜300μs , I_F=15mA		-	1000	
Reverse leakage current	tp＜300μs , V_R=50V	I_R	-	100.00	nA
Junction capacitance	V_R = 0 V, f = 1 MHz	C_J	-	2	pF
Reverse revovery time	I_F = I_R = 10 mA, I_{RR} = 100 Ω, I_{RR} = 1 mA	t_{rr}	-	5	ns

Notes: 1. Valid provided that terminals are kept at ambient temperature

2. Test period ＜ 3000 μs

RATINGS AND CHARACTERISTICS CURVES

(TA=25℃ unless otherwise noted)

Fig.1 Power Derating Curve

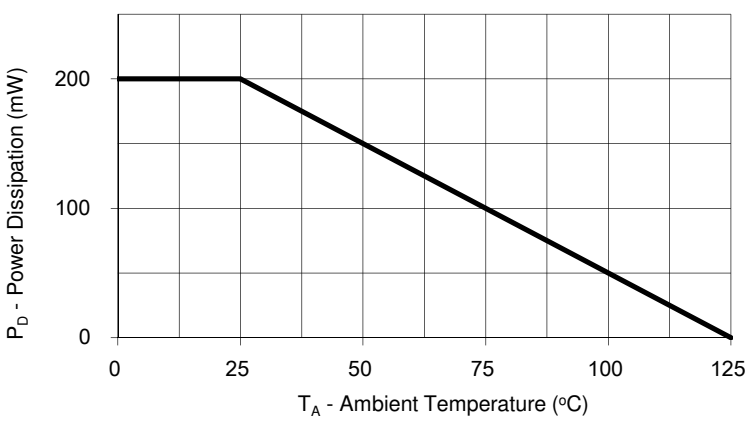


Fig. 2 Maximum Non-Repetitve Peak Forward Surge Current Per Leg

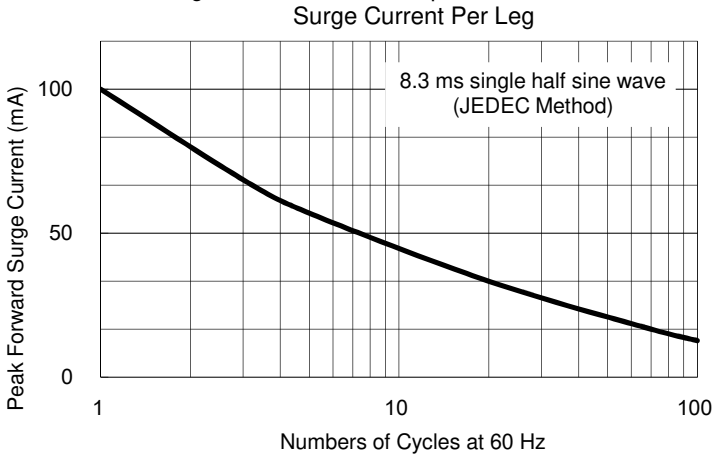


Fig. 3 Typical Forward Characteristics

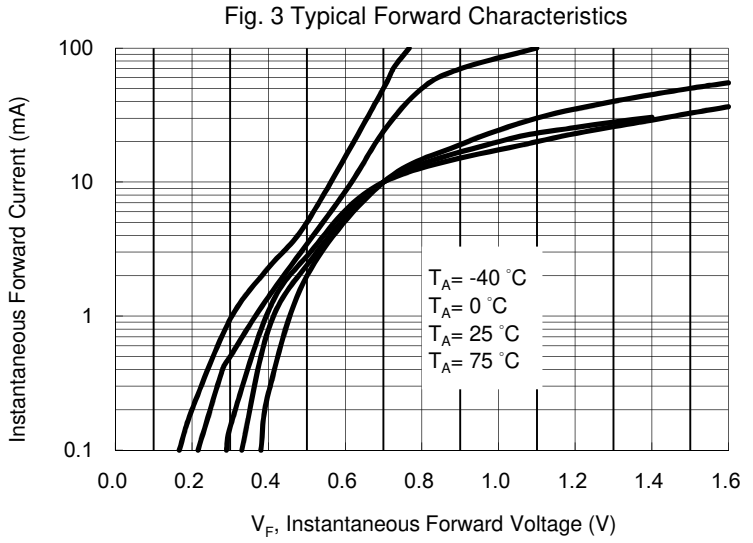


Fig. 4 Typical Reverse Characteristics

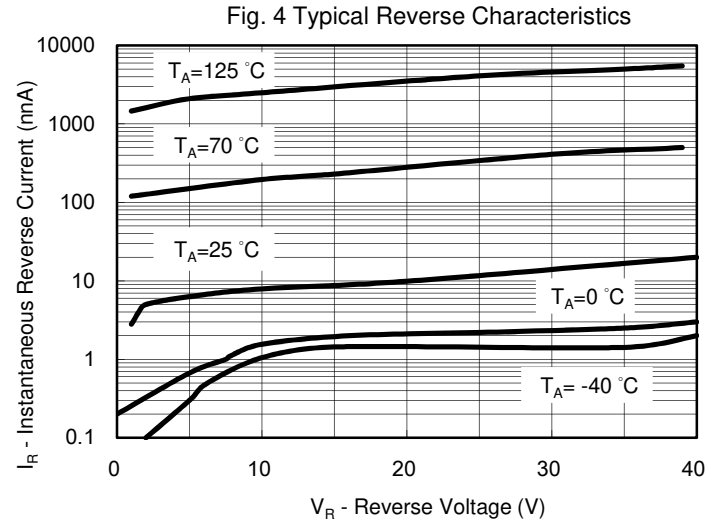


Fig. 5 Typical Total Capacitance VS. Reverse Voltage

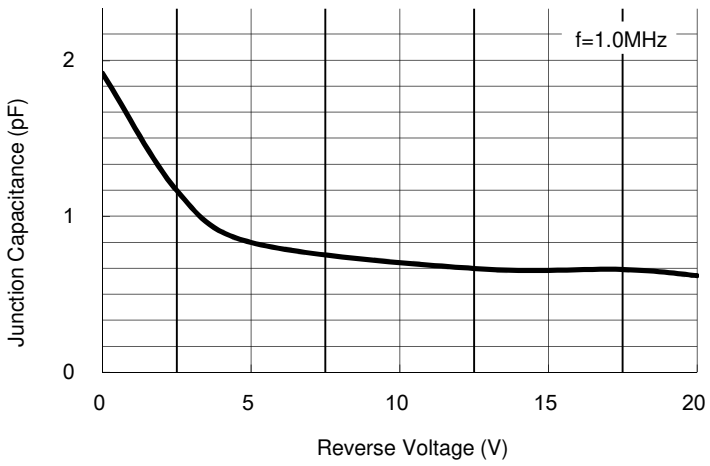
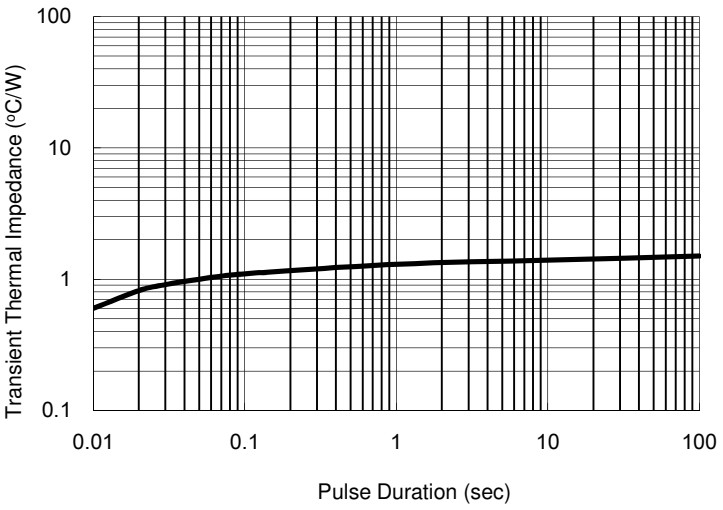


Fig. 6 Typical Transient Thermal Characteristics

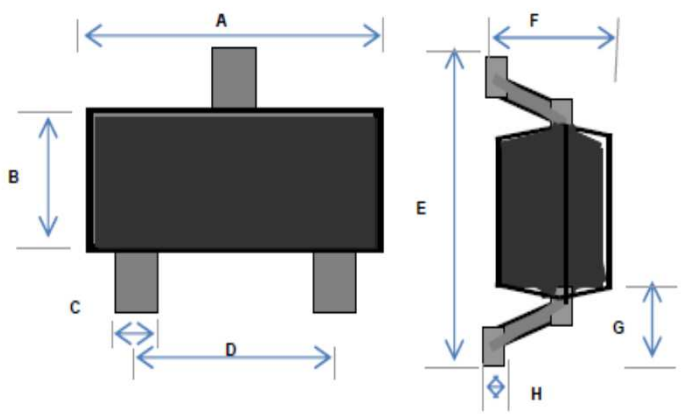


ORDERING INFORMATION						
PART NO.	**MANUFACTURE CODE**	**PACKING CODE**	**GREEN COMPOUND CODE**	**PACKAGE**	**PACKING**	**MARKING**
BAS70	(Note)	RF	G	SOT-23	3K / 7" Reel	73
BAS70-04		RF	G	SOT-23	3K / 7" Reel	74
BAS70-05		RF	G	SOT-23	3K / 7" Reel	75
BAS70-06		RF	G	SOT-23	3K / 7" Reel	76

Note: Manufacture special control, if empty means no special control requirement.

EXAMPLE					
PREFERRED P/N	**PART NO.**	**MANUFACTURE CODE**	**PACKING CODE**	**GREEN COMPOUND CODE**	**DESCRIPTION**
BAS70 RFG	BAS70		RF	G	Green compound
BAS70-B0 RFG	BAS70	B0	RF	G	Green compound
BAS70-D0 RFG	BAS70	D0	RF	G	Green compound

PACKAGE OUTLINE DIMENSIONS

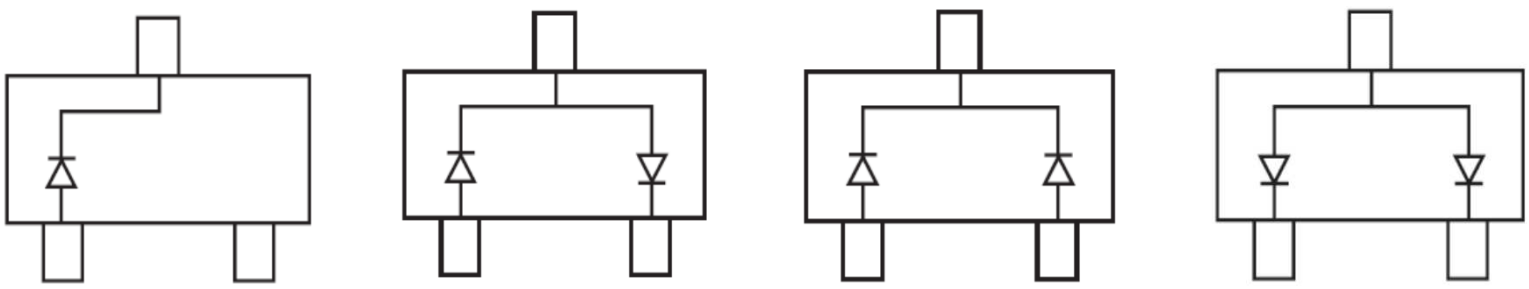


DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	2.70	3.10	0.106	0.122
B	1.10	1.50	0.043	0.059
C	0.30	0.51	0.012	0.020
D	1.78	2.04	0.070	0.080
E	2.10	2.64	0.083	0.104
F	0.89	1.30	0.035	0.051
G	0.55 REF		0.022 REF	
H	0.1 REF		0.004 REF	

SUGGEST PAD LAYOUT

DIM.	Unit (mm)	Unit (inch)
	Typ.	Typ.
Z	2.9	0.114
X	0.8	0.031
Y	0.9	0.035
C	2.0	0.079
E	1.35	0.053

Pin Configuration



BAS70 BAS70-04 BAS70-05 BAS70-06