

BAS70W

Small Signal Schottky Diode



Features

- Moisture sensitivity level 1
- Reverse voltage: 70V
- Average forward current : 70mA

Application

- High frequency and low voltage rectifier

Mechanical data

- **Package:** SOD-123
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102

■ Maximum Ratings ($T_a=25^{\circ}\text{C}$ Unless otherwise specified)

Parameter	Symbol	Unit	Value
Device marking code			73
Repetitive peak reverse voltage	V_{RRM}	V	70
Forward current	I_F	mA	70
Non-repetitive surge peak forward current @ $t=8.3\text{ms}$ half-sine wave	I_{FSM}	A	0.1
Non-repetitive surge peak forward current @ $t=1\text{ms}$ square wave			2
Power dissipation	P_D	mW	400
Junction temperature	T_J	$^{\circ}\text{C}$	-55 to +125
Storage temperature	T_{STG}	$^{\circ}\text{C}$	-55 to +150

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■ Electrical Characteristics (T_a=25°C Unless otherwise specified)

Parameter	Symbol	Unit	Conditions	Min	Typ	Max
Breakdown voltage	V _R	V	I _R =10uA	70		
Forward voltage	V _F	V	I _F =1mA			0.41
			I _F =15mA			1.0
Reverse leakage current	I _R	uA	V _R =50V			0.2
Junction capacitance	C _j	pF	V _R =1V, f =1MHZ			2
Reverse recovery time	T _{rr}	ns	I _F =I _R =10mA, I _{rr} =0.1*I _R ,			5

■ Thermal Characteristics

Parameter	Symbol	Unit	Value
Thermal resistance, junction-to-ambient	R _{θJ-A} ⁽¹⁾	°C/W	250
Thermal resistance, junction-to-case	R _{θJ-C} ⁽¹⁾	°C/W	200

Note:

(1) Thermal resistance from junction to ambient and from junction to case mounted on P.C.B. with 8mm*9mm copper pad areas

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■ Characteristics

Fig 1: P_D - T_a Curve

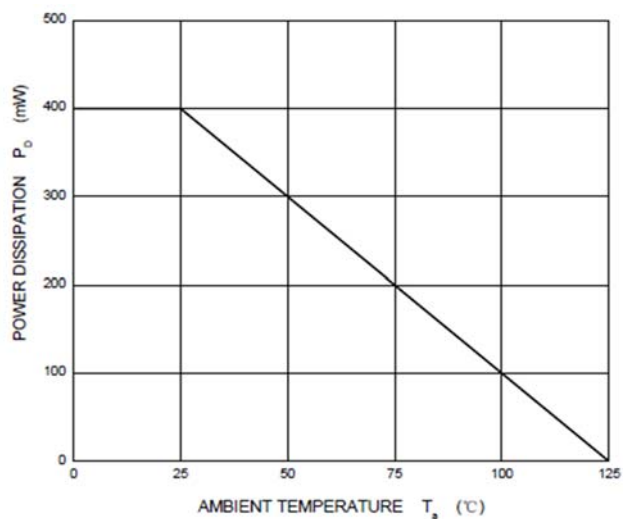


Fig 2: Capacitance Capability

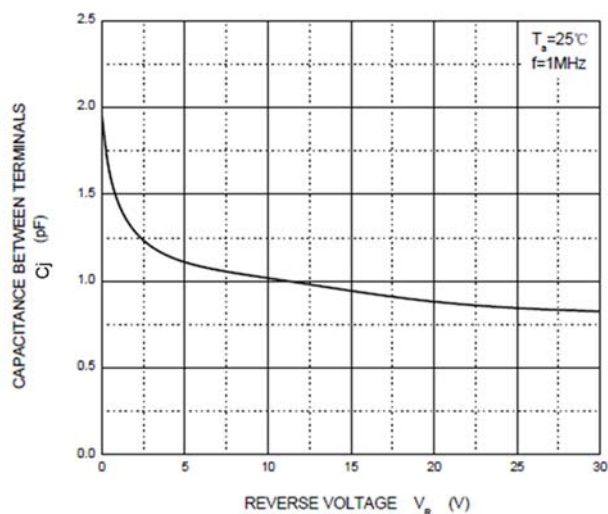


Fig 3: Typical Forward Characteristics

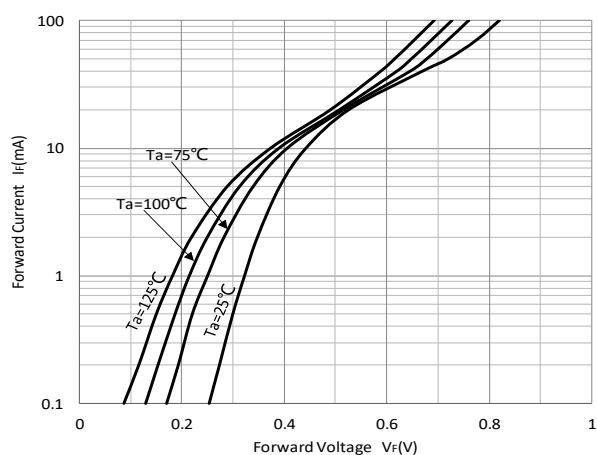
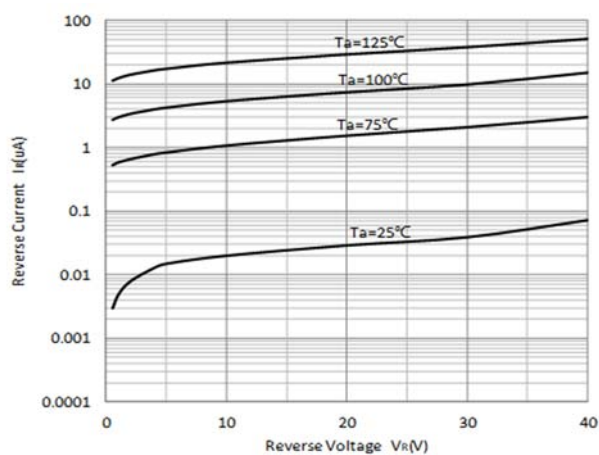


Fig 4: Typical Reverse Characteristics

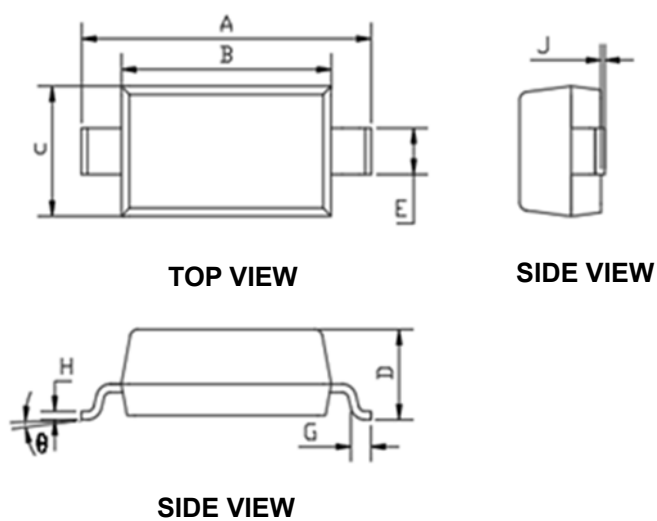


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■ Ordering Information

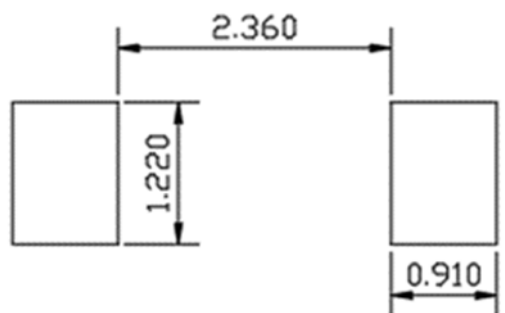
Preferred P/N	Packing code	Unit weight(g)	Minimum package(pcs)	Inner box quantity(pcs)	Outer carton quantity(pcs)	Delivery mode
BAS70W	F2	Approximate 0.011	3000	30000	120000	7" reel
BAS70W	F3	Approximate 0.011	10000	/	210000	13" reel

■ Outline Dimensions



DIMENSIONS				
DIM	INCHES		MM	
	MIN	MAX	MIN	MAX
A	0.140	0.152	3.550	3.850
B	0.100	0.112	2.550	2.850
C	0.055	0.071	1.400	1.800
D	0.037	0.053	0.950	1.350
E	0.020	0.028	0.510	0.710
G	0.006	0.018	0.150	0.450
H	0.003	0.010	0.080	0.250
J	0.000	0.006	0.000	0.150
θ	0	8°	0	8°

■ Suggested Pad Layout



UNIT: mm

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