

BAS70 THRU BAS40-06

Schottky Barrier Diode



BAS70



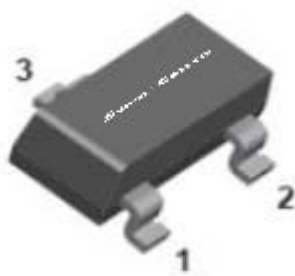
BAS70-04



BAS70-05



BAS70-06



Features

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

Application

- Signal switching
- high frequency rectifier

Mechanical data

- **Package:** SOT-23
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102

■ Maximum Ratings (T_a=25°C Unless otherwise specified)

Parameter	Symbol	Unit	Value	
Device marking code			BAS70	73
			BAS70-04	74
			BAS70-05	75
			BAS70-06	76
Repetitive peak reverse voltage	V _{RRM}	V	70	
Forward current, per leg	I _F	mA	70	
Non-repetitive Surge peak forward current @ t=8.3ms half-sine wave	I _{FSM}	A	0.1	
Non-repetitive Surge peak forward current @ t=1ms square wave			2	
Power dissipation	P _D	mW	200	
Junction temperature	T _J	°C	-55 to +125	
Storage temperature	T _{STG}	°C	-55 to +125	

BAS70 THRU BAS40-06

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

Parameter	Symbol	UNIT	Conditions	Min	TYP	Max
Reverse voltage	V _R	V	I _R =10uA	70		
Forward voltage	V _{F1}	V	I _F =1mA			0.41
	V _{F2}	V	I _F =15mA			1
Reverse leakage current	I _R	uA	V _R =50V			0.2
Junction capacitance	C _j	pF	V _R =1.0V, 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	500
Thermal resistance, junction-to-case	R _{θJ-C} ⁽¹⁾	°C/W	400

Note:

(1) Device mounted on PCB, single-sided copper, with standard footprint

BAS70 THRU BAS40-06

■ Characteristics

Fig 1: P_D - T_a Curve

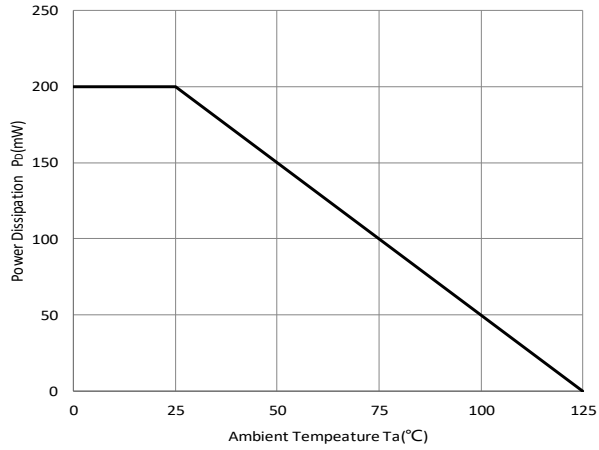


Fig 2: Capacitance Capability

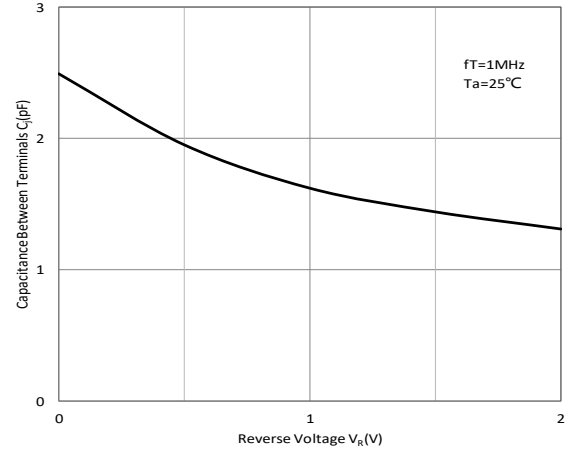


Fig 3: Typical Forward Characteristics

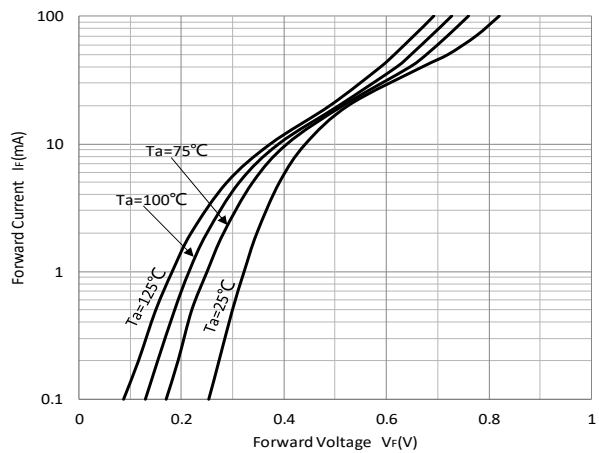
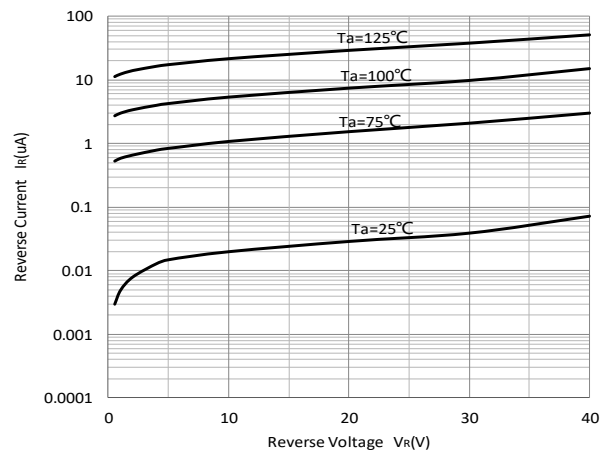


Fig 4: Typical Reverse Characteristics

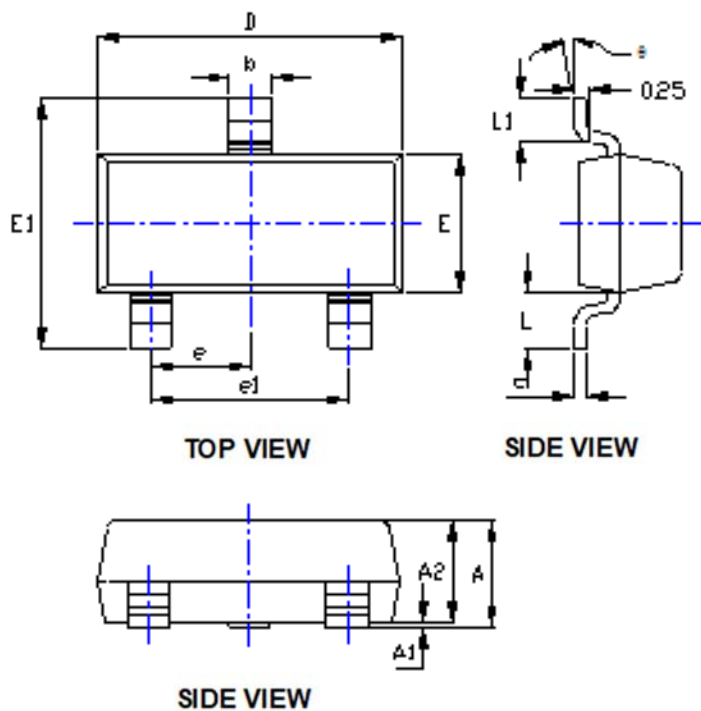


BAS70 THRU BAS40-06

■ Ordering Information

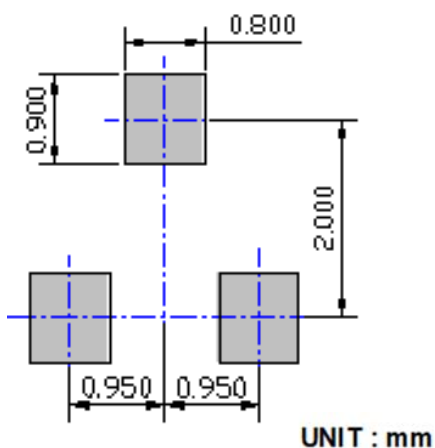
Preferred P/N	Packing code	Unit weight(g)	Minimum package(pcs)	Inner box quantity(pcs)	Outer carton quantity (pcs)	Delivery mode
BAS70 THRU BAS70-06	F2	Approximate 0.008	3000	30000	120000	7" reel
BAS70 THRU BAS70-06	F4	Approximate 0.008	10000	/	210000	13" reel

■ Outline Dimensions



SYMBOL	DIMENSIONS			
	INCHES		Millimeter	
	MIN.	MAX.	MIN.	MAX.
A	0.035	0.045	0.900	1.150
A1	0.000	0.004	0.000	0.100
A2	0.035	0.041	0.900	1.050
b	0.012	0.020	0.300	0.500
c	0.004	0.008	0.100	0.200
D	0.110	0.118	2.800	3.000
E	0.047	0.055	1.200	1.400
E1	0.089	0.100	2.250	2.550
e	0.037TYP		0.950TYP	
e1	0.071	0.079	1.800	2.000
L	0.022REF		0.550REF	
L1	0.012	0.020	0.300	0.500
θ	0°	8°	0°	8°

■ Suggested Pad Layout



BAS70 THRU BAS40-06

Disclaimer

The information presented in this document is for reference only. Shanghai Sunco Electronics Co., Ltd reserves the right to make changes without notice for the specification of the products displayed herein to improve reliability, function, or design or otherwise.

The product listed herein is designed to be used with ordinary electronic equipment or devices, and not designed to be used with equipment or devices which require high level of reliability and the malfunction of which would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), Russiansunco or anyone on its behalf, assumes no responsibility or liability for any damages resulting from such improper use of sale.

This publication supersedes & replaces all information previously supplied. For additional information, please visit our website [http:// www.russiansunco.com](http://www.russiansunco.com) , or consult your nearest Russiansunco's sales office for further assistance.