

Schottky Barrier Diode

Features

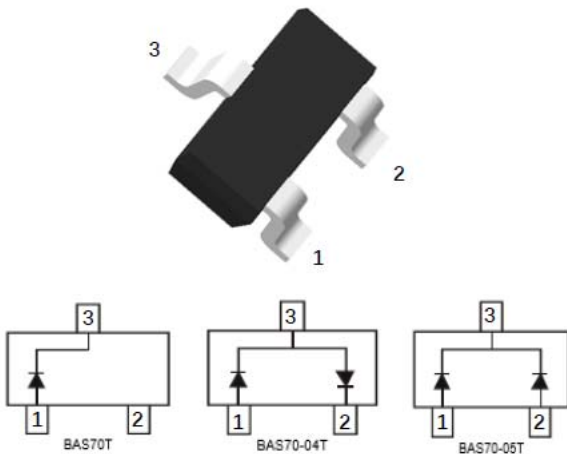
- Moisture sensitivity level 1
- Reverse voltage: 70V
- Average forward current: 70mA

Application

- High frequency rectifier
- Signal switching

Mechanical data

- **Package:** SOT-523
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102



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

Parameter	Symbol	Unit	Conditions	Value
Device marking code			BAS70T	7C
			BAS70-04T	7D
			BAS70-05T	7E
Repetitive peak reverse voltage	V _R	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			0.5	
Power dissipation	P _D	mW		150
Junction temperature	T _J	°C		-55 to +125
Storage temperature	T _{STG}	°C		-55 to +125



BAS70T THRU BAS70-05T

RoHS
COMPLIANT

■ 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 _F	V	I _F =1mA			0.41
			I _F =15mA			1.0
Reverse leakage current	I _R	nA	V _R =50V			100
Junction capacitance	C _j	pF	f=1.0MHz, V _R =1V			2
Reverse recovery time	T _{rr}	ns	I _F =I _R =10mA I _{rr} =0.1*I _R , R _L =100Ω			5

■ Thermal Characteristics

Parameter	Symbol	Unit	Value
Thermal resistance, junction-to-ambient	R _{θJ-A} ⁽¹⁾	°C/W	667
Thermal resistance, junction-to-case	R _{θJ-C} ⁽¹⁾	°C/W	534

Note:

(1) Thermal resistance from junction to ambient and from junction to case mounted on P.C.B. with 25.4mm*25.4mm copper pad areas



■ Characteristics

Fig 1: P_D - T_a Curve

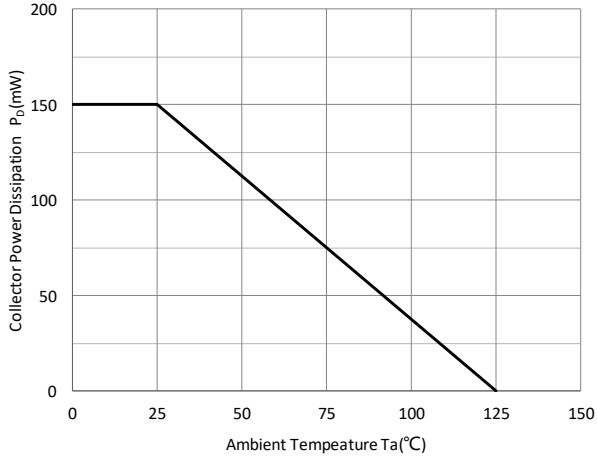


Fig 2: Capacitance Capability

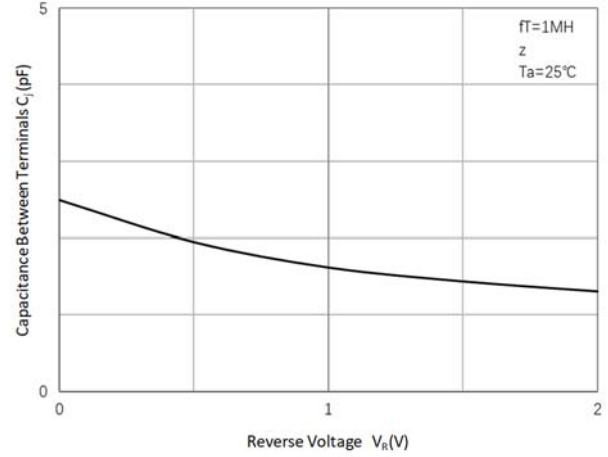


Fig 3: Typical Forward Characteristics

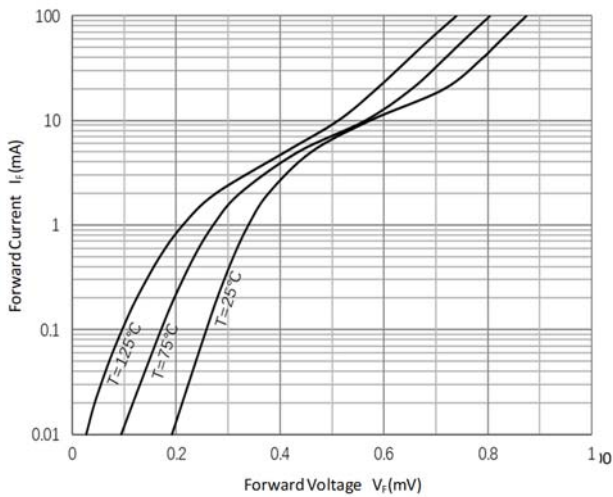
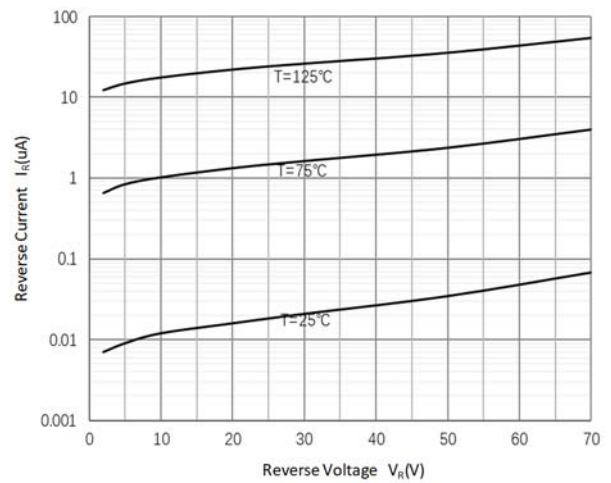


Fig 4: Typical Reverse Characteristics





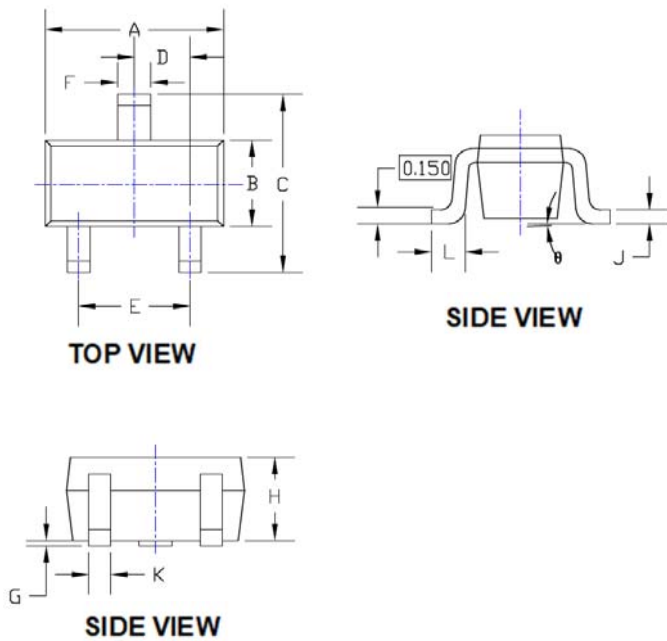
BAS70T THRU BAS70-05T

RoHS
COMPLIANT

Ordering Information

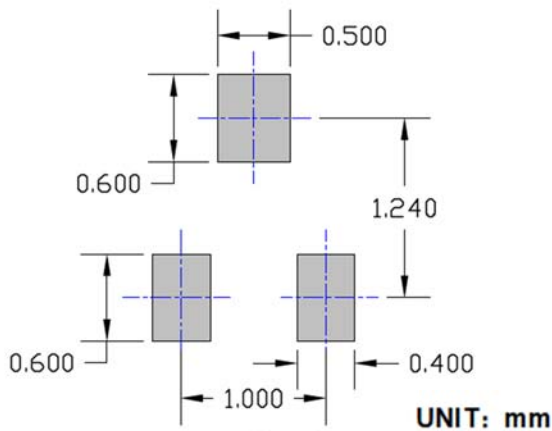
Preferred P/N	Packing code	Unit weight(g)	Minimum package(pcs)	Inner box quantity(pcs)	Outer carton quantity(pcs)	Delivery mode
BAS70T THRU BAS70-05T	F2	Approximate 0.0027	3000	30000	120000	7" reel

Outline Dimensions



SYMBOL	DIMENSIONS			
	INCHES		Millimeter	
	MIN.	MAX.	MIN.	MAX.
A	0.059	0.067	1.500	1.700
B	0.030	0.033	0.750	0.850
C	0.057	0.069	1.450	1.750
D	0.020TYP		0.500TYP	
E	0.035	0.043	0.900	1.100
F	0.010	0.018	0.250	0.450
G	0.000	0.004	0.000	0.100
H	0.024	0.031	0.600	0.800
J	0.004	0.008	0.100	0.200
K	0.006	0.014	0.150	0.350
L	0.010	0.018	0.260	0.460
θ	0°	8°	0°	8°

Suggested Pad Layout





Disclaimer

The information presented in this document is for reference only. Yangzhou Yangjie Electronic Technology 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), Yangjie 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.21yangjie.com](http://www.21yangjie.com) , or consult your nearest Yangjie's sales office for further assistance.