

Small Signal Schottky Diode



SOT-323

Features

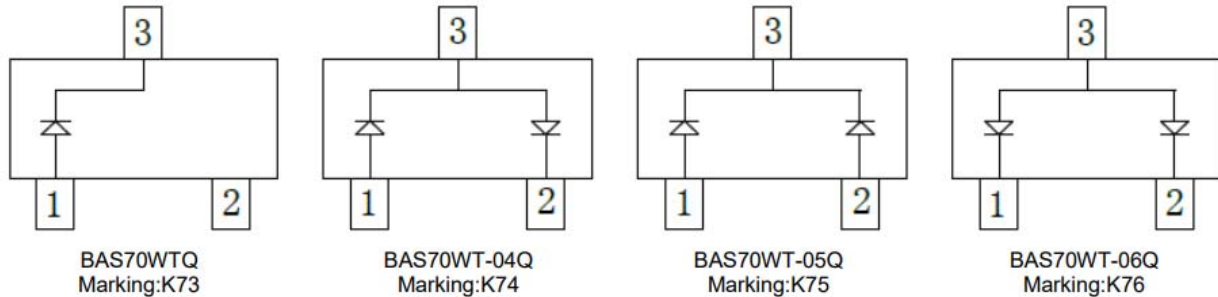
- Epoxy meets UL-94 V-0 flammability rating and halogen free
- Moisture Sensitivity Level 1
- Low Forward Voltage Schottky Rectifier
- V_{RRM} 70V
- I_{FAV} 70mA
- Part no. with suffix "Q" means AEC-Q101 qualified

Applications

- For fast switching
- Automotive

Mechanical Data

- **Case:** SOT-323
- **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	CONDITIONS	VALUE
Peak Repetitive Reverse Voltage	V_{RRM}	V		70
Average Forward Current	I_{FAV}	mA		70
Non-Repetitive Peak Forward Surge Current	I_{FSM}	A	$t=8.3\text{ms}$	3
Power Dissipation	P_D	mW		250
Thermal Resistance Junction to Ambient	R_{thJA}	$^\circ\text{C}/\text{W}$		500
Junction Temperature	T_j	$^\circ\text{C}$		-55 to +150
Storage Temperature Range	T_{stg}	$^\circ\text{C}$		-55 to +150



BAS70WTQ THRU BAS70WT-06Q

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

PARAMETER	SYMBOL	UNIT	CONDITIONS	MIN	MAX
Forward Voltage	V _F	V	I _F =1mA		0.41
			I _F =15mA		1
Reverse Current	I _R	μA	V _R =50V		0.2
Reverse Breakdown Voltage	V _{BR}	V	I _R =10μA	70	
Junction Capacitance	C _J	pF	V _R =0V, f =1MHz		4
Reverse Recovery Time	t _{rr}	ns	I _F =I _R =10mA, I _{rr} =1mA, R _L =100Ω		5

■ Ordering Information (Example)

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
BAS70WTQ BAS70WT-04Q BAS70WT-05Q BAS70WT-06Q	F2	Approximate 0.006	3000	30000	120000	7" reel



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■ Characteristics (Typical)

Fig.1: P_D-T_A

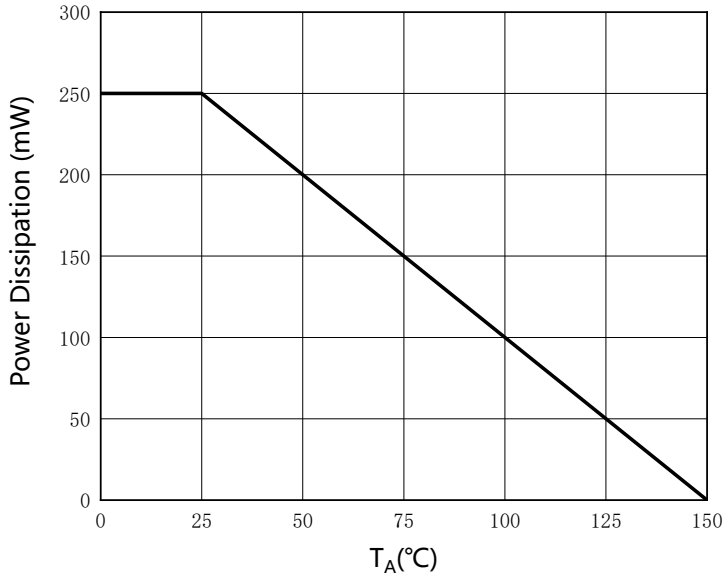


Fig.2: Capacitance Characteristics

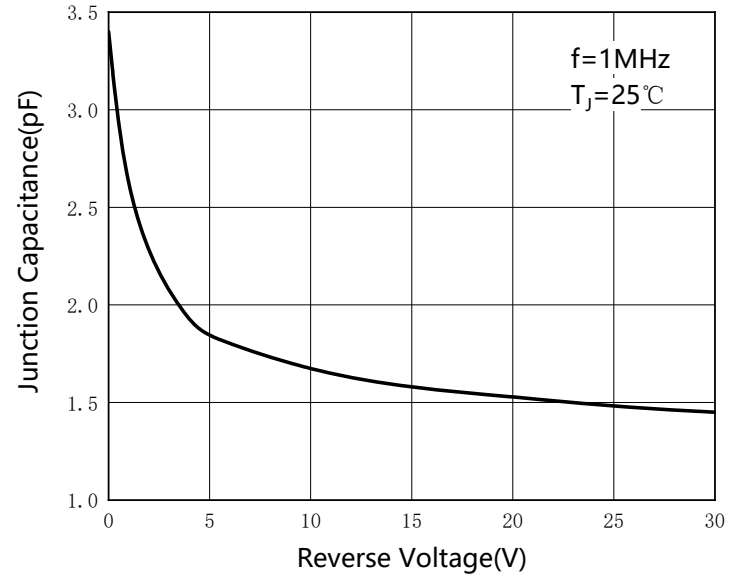


Fig.3: Forward Characteristics

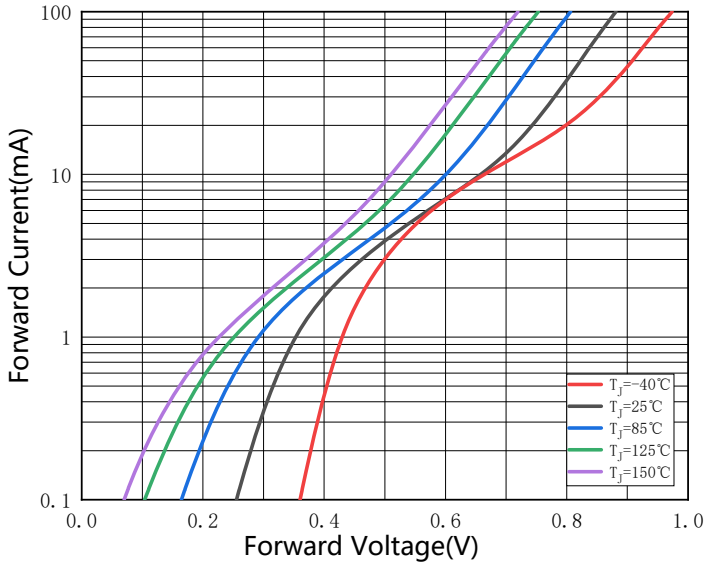
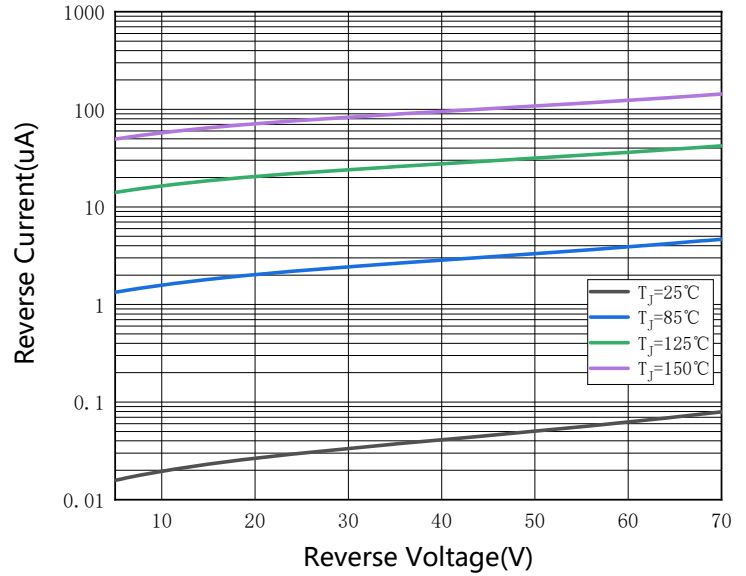


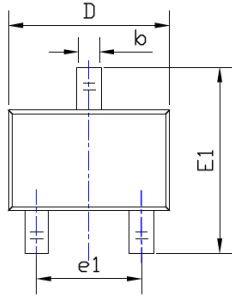
Fig.4: Reverse Characteristics



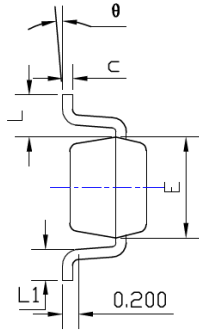


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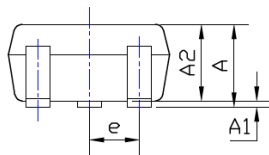
Outline Dimensions



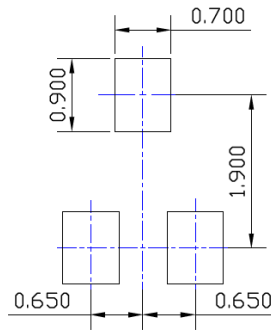
TOP VIEW



SIDE VIEW



SIDE VIEW



UNIT: mm

SUGGESTED SOLDER PAD LAYOUT

SYMBOL	DIMENSIONS			
	INCHES		Millimeter	
	MIN.	MAX.	MIN.	MAX.
A	0.035	0.043	0.900	1.100
A1	0.000	0.004	0.000	0.100
A2	0.035	0.039	0.900	1.000
b	0.006	0.016	0.150	0.400
c	0.004	0.010	0.100	0.250
D	0.071	0.087	1.800	2.200
E	0.045	0.053	1.150	1.350
E1	0.085	0.096	2.150	2.450
e	0.026TYP		0.650TYP	
e1	0.047	0.055	1.200	1.400
L	0.021REF		0.525REF	
L1	0.010	0.018	0.260	0.460
θ	0°	8°	0°	8°

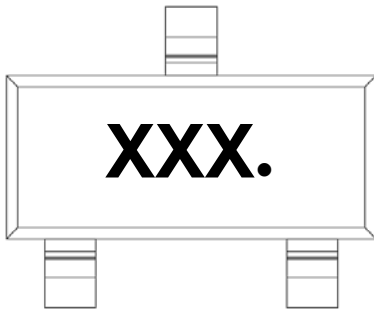
NOTE:

1.PACKAGE BODY SIZES EXCLUDE MOLD FLASH AND GATE BURRS.

2.TOLERANCE 0.1mm UNLESS OTHERWISE SPECIFIED.

3.THE PAD LAYOUT IS FOR REFERENCE PURPOSES ONLY.

Marking Information



PN	Marking Code
BAS70WTQ	K73.
BAS70WT-04Q	K74.
BAS70WT-05Q	K75.
BAS70WT-06Q	K76.

Note:

1. All marking is at middle of the product body
2. All marking is in laser marking
3. XXX is Marking Code
4. Body color: Black



BAS70WTQ THRU BAS70WT-06Q

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