

High Speed Switching Diode



SOT-323

Features

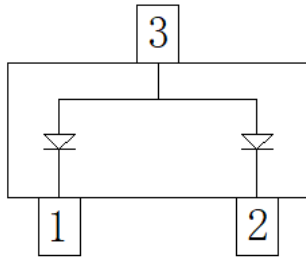
- Epoxy meets UL-94 V-0 flammability rating and halogen free
- Moisture Sensitivity Level 1
- V_{BR} 100V
- I_{FAV} 150mA@ Single diode loaded
- Part no. with suffix "Q" means AEC-Q101 qualified

Applications

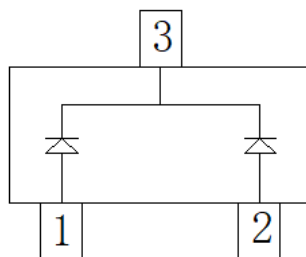
- Extreme fast switches

Mechanical Data

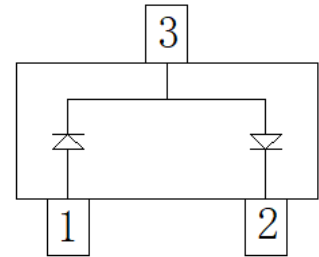
- **Case:** SOT-323
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102



BAW56WTQ
Marking:KJC



BAV70WTQ
Marking:KJA



BAV99WTQ
Marking: KJG

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

PARAMETER	SYMBOL	UNIT	CONDITIONS	VALUE
Reverse Breakdown Voltage	V_{BR}	V		100
Average Forward Current	$I_{FAV[1]}$	mA		150
Non-Repetitive Peak Forward Surge Current	I_{FSM}	A	$t_p=1\text{ ms}$	1
Power Dissipation	$P_{tot[1]}$	mW		200
Thermal Resistance Junction to Ambient	R_{thJA}	$^{\circ}\text{C/W}$		625
Maximum Junction Temperature	T_j	$^{\circ}\text{C}$		150
Storage Temperature Range	T_{stg}	$^{\circ}\text{C}$		-55 to +150

[1] Single diode loaded



BAW56WTQ&BAV70WTQ&BAV99WTQ

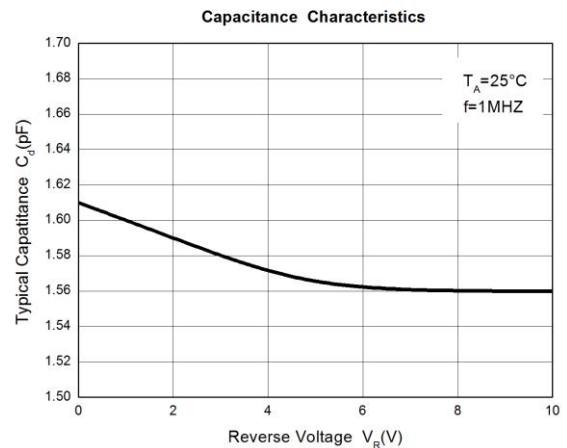
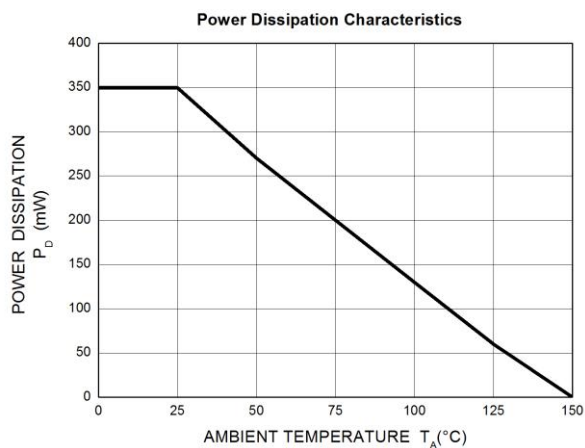
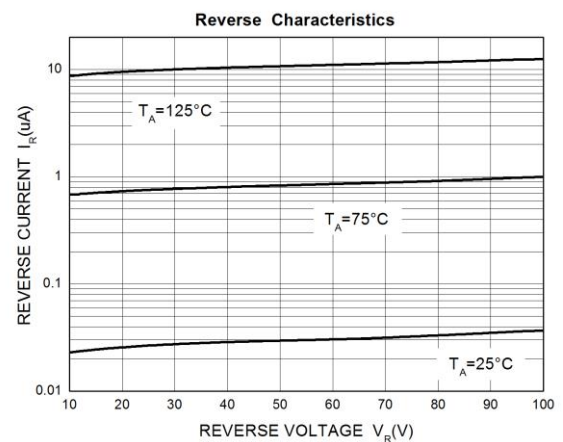
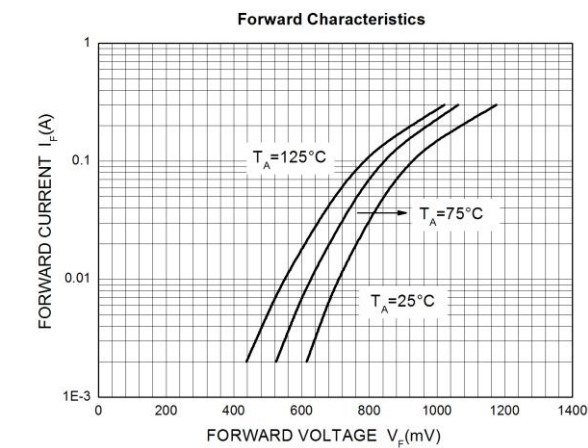
■ Electrical Characteristics (T_a=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	CONDITIONS	VALUE
Forward Voltage	V _F	V	I _F =1mA	0.715
			I _F =10mA	0.855
			I _F =50mA	1.0
			I _F =150mA	1.25
Reverse Current	I _R	μA	V _R =75V	1
Reverse Breakdown Voltage	V _{BR}	V	I _R =100μA	100
Diode Capacitance	C _j	pF	V _R =V _F =0V, f=1MHz	2
Reverse Recovery Time	t _{rr}	ns	I _F =10mA, I _{rr} =0.1I _R , R _L =100Ω	4

■ Ordering Information (Example)

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
BAW56WTQ BAV70WTQ BAV99WTQ	F2	Approximate 0.006	3000	30000	120000	7" reel

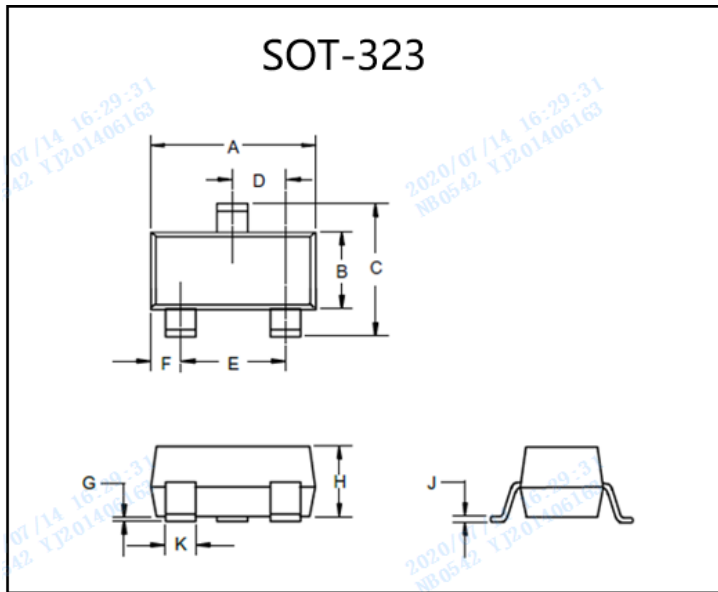
■ Characteristics (Typical)





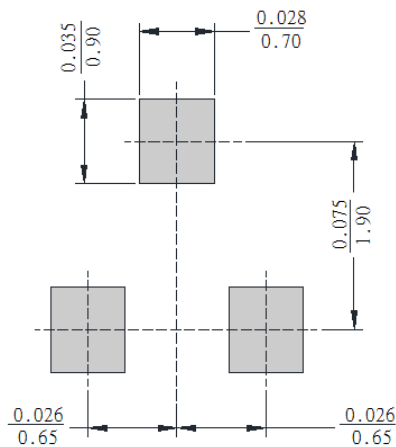
BAW56WTQ&BAV70WTQ&BAV99WTQ

■ Outline Dimensions



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.071	0.087	1.80	2.20	
B	0.045	0.053	1.15	1.35	
C	0.083	0.096	2.10	2.45	
D	0.026Nominal		0.65Nominal		
E	0.047	0.055	1.20	1.40	
F	0.012	0.016	0.30	0.40	
G	0.000	0.004	0.00	0.10	
H	0.035	0.039	0.90	1.00	
J	0.004	0.010	0.10	0.250	
K	0.006	0.016	0.15	0.40	

■ Soldering Footprint



Unit: $\frac{\text{inch}}{\text{mm}}$



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