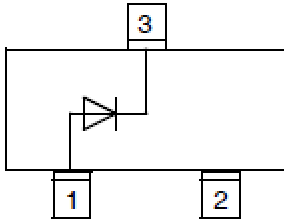


High Speed Switching Diode



SOT-323

Features

- Epoxy meets UL-94 V-0 flammability rating and halogen free
- Moisture Sensitivity Level 1
- V_R 75V
- I_{FAV} 150mA
- 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
- **Polarity:** Cathode line denotes the cathode end
- **Marking:** A2

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

PARAMETER	SYMBOL	UNIT	CONDITIONS	VALUE
Reverse Voltage	V_R	V		75
Repetitive Peak Reverse Voltage	V_{RRM}	V		100
Average Forward Current	I_{FAV}	mA		150
Peak Forward Surge Current	I_{FSM}	A	Pulse width=1 us Pulse width=1 s	2 1
Power Dissipation	P_{tot}	mW		200
Thermal Resistance Junction to Ambient	R_{thJA}	K/W		625
Junction Temperature	T_j	$^\circ\text{C}$		-55 to +150
Storage Temperature Range	T_{stg}	$^\circ\text{C}$		-55 to +150



BAS16WTQ

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

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

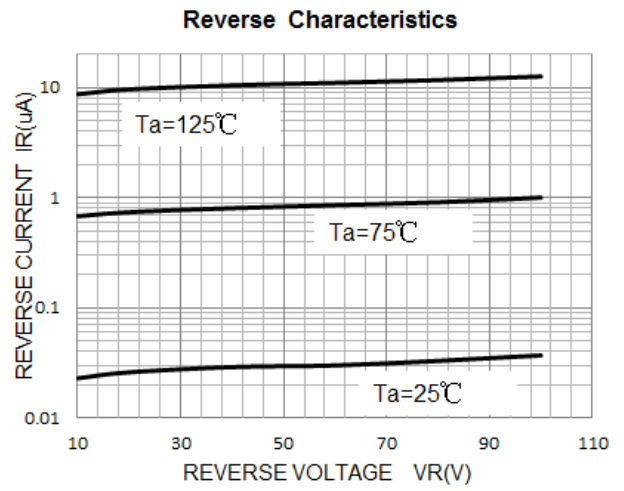
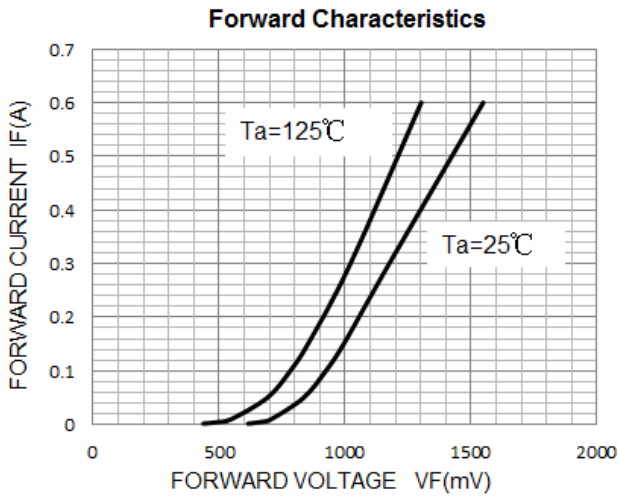
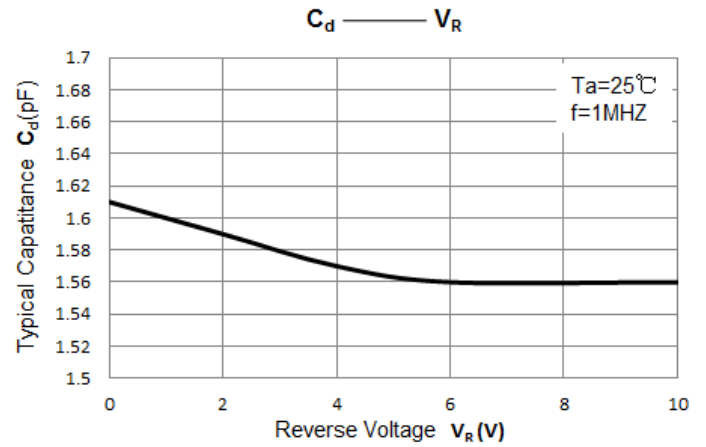
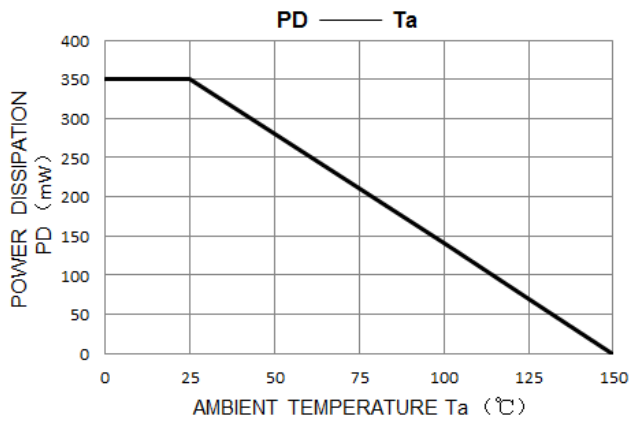
■ Ordering Information (Example)

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
BAS16WTQ	F2	Approximate 0.006	3000	30000	120000	7" reel



BAS16WTQ

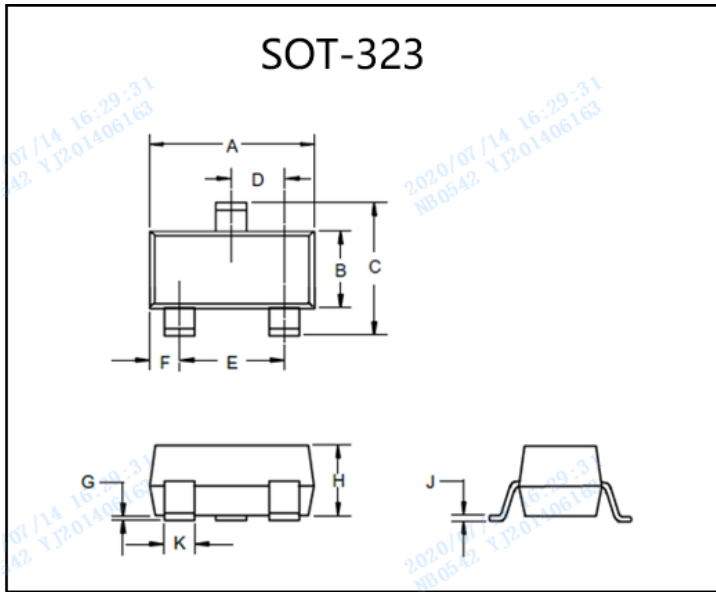
■ Characteristics (Typical)





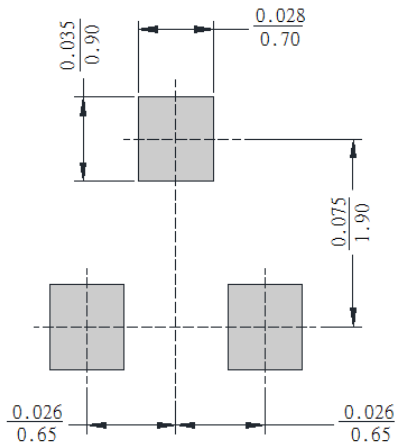
BAS16WTQ

■ SOT-323 Package 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	

■ SOT-323 Soldering Footprint



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



BAS16WTQ

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 automotive electronics, are not designed for use in medical, life-saving, lifesustaining, or military, 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.