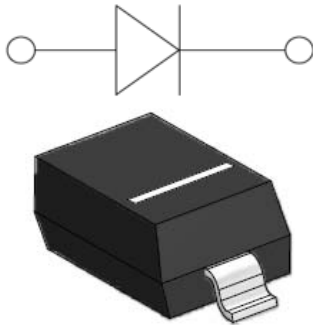


## High Speed Switching Diode



**SOD323**

### Features

Epoxy meets UL-94 V-0 flammability rating and halogen free  
 Moisture Sensitivity Level 1  
 $V_{RRM}$  100V  
 $I_{FAV}$  200mA  
 Part no. with suffix "Q" means AEC-Q101 qualified

### Applications

Extreme fast switches  
 Automotive

### Mechanical Data

**Case:** SOD323  
**Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102  
**Polarity:** Cathode line denotes the cathode end  
**Marking:** T4

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

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

### Electrical Characteristics ( $T_a=25^\circ\text{C}$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	CONDITIONS	MIN	MAX
Forward Voltage	$V_F$	V	$I_F=1\text{mA}$		0.715
			$I_F=10\text{mA}$		0.855
			$I_F=50\text{mA}$		1.0
			$I_F=150\text{mA}$		1.25
Reverse Current	$I_R$	$\mu\text{A}$	$V_R=75\text{V}$		1.0
Reverse Breakdown Voltage	$V_{BR}$	V	$I_R=100\mu\text{A}$	100	
Diode Capacitance	$C_D$	pF	$V_R=V_F=0\text{V}$ , $f=1\text{MHz}$		4
Reverse Recovery Time	$t_{rr}$	ns	$I_F=I_R=10\text{mA}$ , $I_{rr}=0.1I_R$ , $R_L=100$		6



# BAS16WSQ

## Ordering Information (Example)

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
BAS16WSQ	F2	Approximate 0.0045	3000	30000	120000	7" reel

## Characteristics (Typical)

Fig.1:  $P_D-T_A$

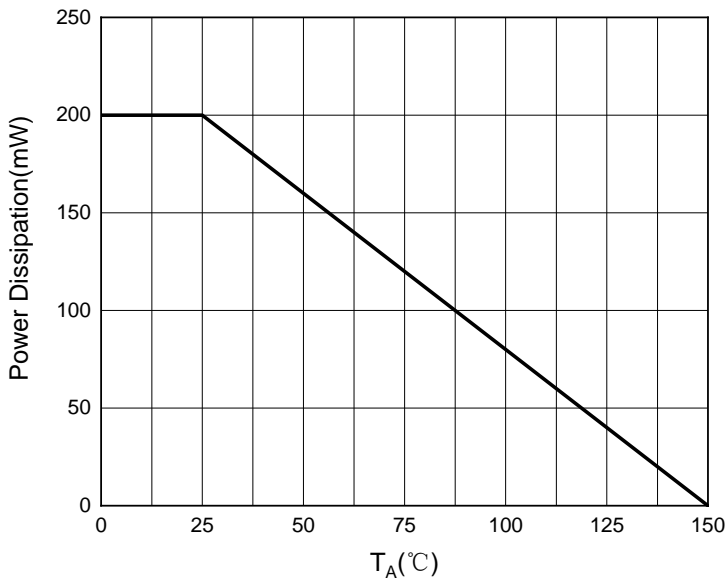


Fig.2: Capacitance Characteristics

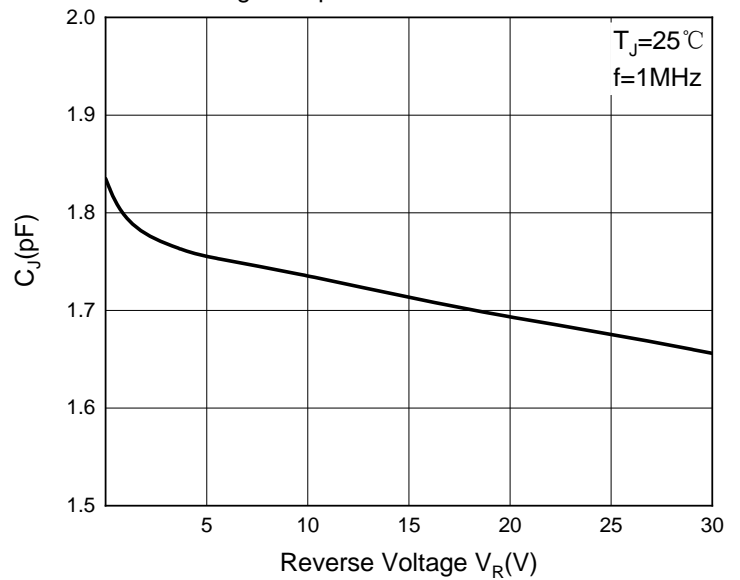


Fig.3: Forward Characteristics

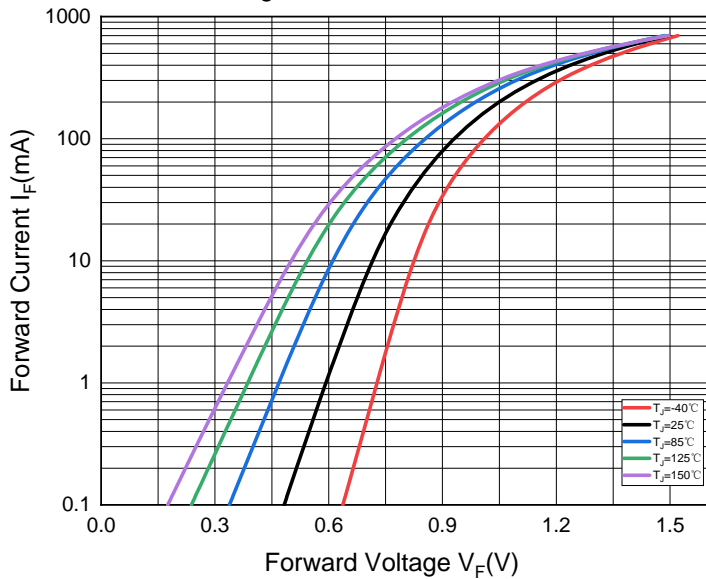
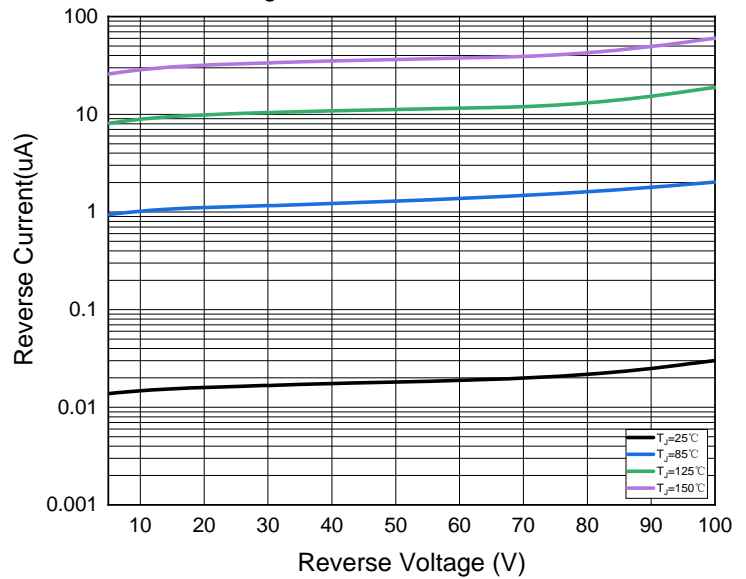


Fig.4: Reverse Characteristics

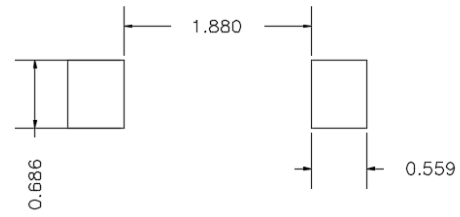
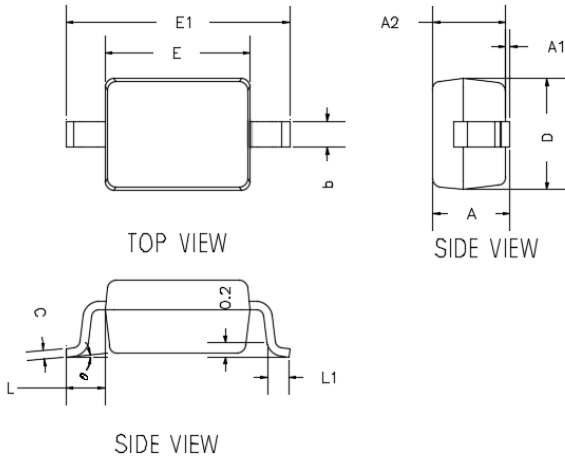




# BAS16WSQ

## Outline Dimensions

SOD-323

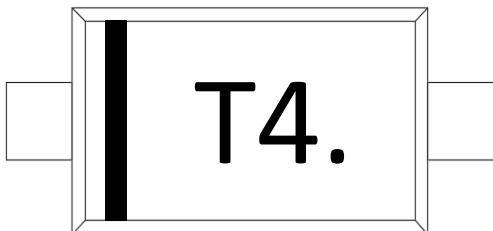


UNIT : mm

SUGGESTED SOLDER PAD LAYOUT

DIMENSIONS				
DIM	INCHES		MM	
	MIN	MAX	MIN	MAX
A	---	0.0393	---	1.0000
A1	0.0000	0.0039	0.0000	0.1000
A2	0.0314	0.0354	0.8000	0.9000
b	0.0098	0.0157	0.2500	0.4000
c	0.0031	0.0059	0.0800	0.1500
D	0.0472	0.0551	1.2000	1.4000
E	0.0629	0.0709	1.6000	1.8000
E1	0.0984	0.1063	2.5000	2.7000
L	0.0187TYP		0.475TYP	
L1	0.0098	0.0157	0.250	0.400
e	0°	8°	0°	8°

## Marking Information



**Note:**

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



## BAS16WSQ

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### Disclaimer

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