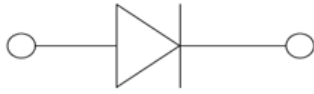


## High Speed Switching Diode



**SOD323**

### Features

- Epoxy meets UL-94 V-0 flammability rating and halogen free
- Moisture Sensitivity Level 1
- $V_{RRM}$  75V
- $I_{FAV}$  250mA
- 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:** T5

### ■ Maximum Ratings ( $T_a=25$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	CONDITIONS	VALUE
Repetitive Peak Reverse Voltage	$V_{RRM}$	V		75
Peak Forward Surge Current	$I_{FSM}$	A	Pulse width =1 $\mu$ s	2
Average Forward Current	$I_{FAV}$	mA		250
Power Dissipation	$P_{tot}$	mW		200
Thermal Resistance	$R_{thJA}$	K/W		625
Junction Temperature	$T_j$	$^{\circ}$ C		-55 to +150
Storage Temperature Range	$T_{stg}$	$^{\circ}$ C		-55 to +150



# 1N4448WSQ

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

PARAMETER	SYMBOL	UNIT	CONDITIONS	MIN	MAX
Forward Voltage	$V_F$	V	$I_F=5\text{mA}$		0.72
			$I_F=10\text{mA}$		0.855
			$I_F=50\text{mA}$		1.0
			$I_F=150\text{mA}$		1.25
Reverse Current	$I_R$	nA	$V_R=20\text{V}$		25
	$I_R$	nA	$V_R=75\text{V}$		200
Breakdown Voltage	$V_R$	V	$I_R=100\mu\text{A}$	75	
Junction Capacitance	$C_j$	pF	$V_R=V_F=0\text{V}$ , $f=1\text{MHz}$		4
Reverse Recovery Time	$t_{rr}$	ns	$I_F=10\text{mA}$ , $I_{rr}=0.1I_R$ , $R_L=100\Omega$		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
1N4448WSQ	F2	Approximate 0.0045	3000	30000	120000	7" reel



# 1N4448WSQ

## ■ Characteristics (Typical)

Fig.1:  $P_D-T_A$

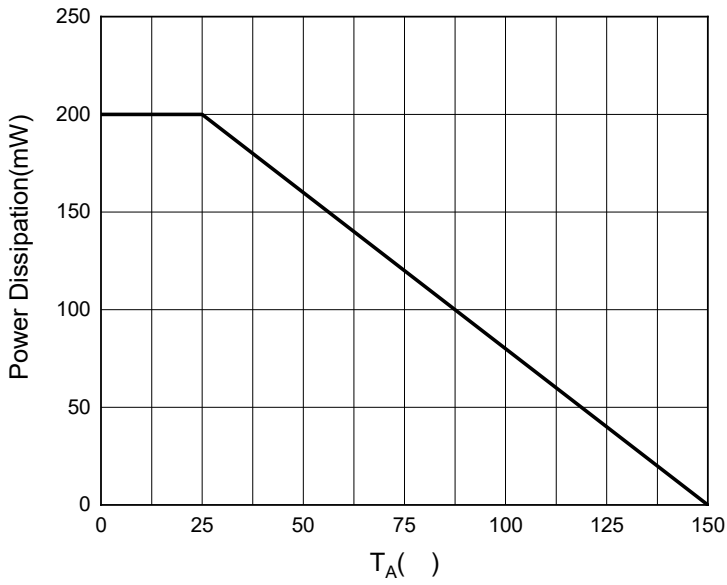


Fig.2: Capacitance Characteristics

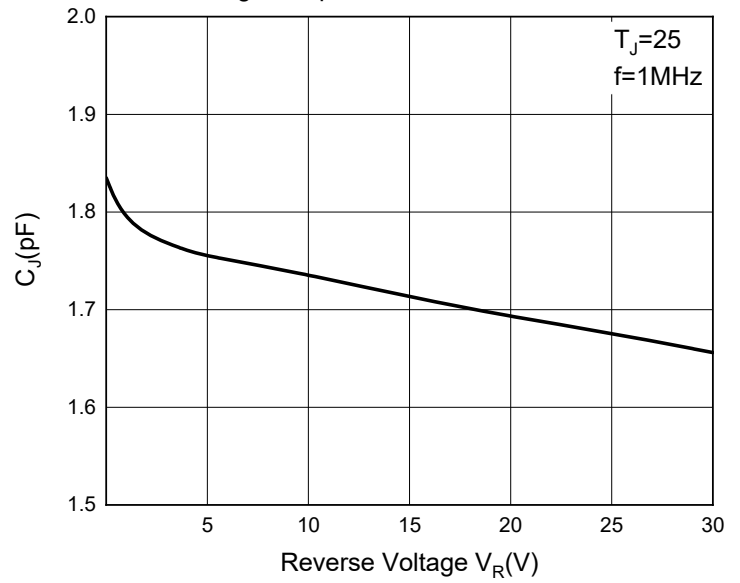


Fig.3: Forward Characteristics

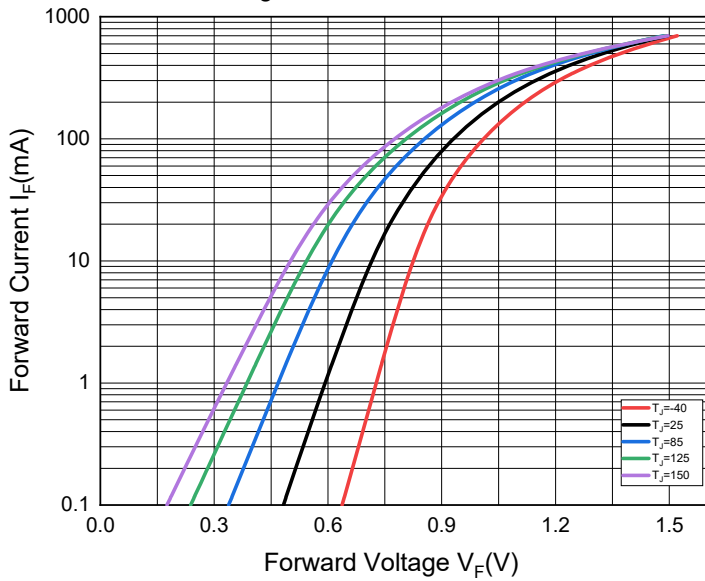
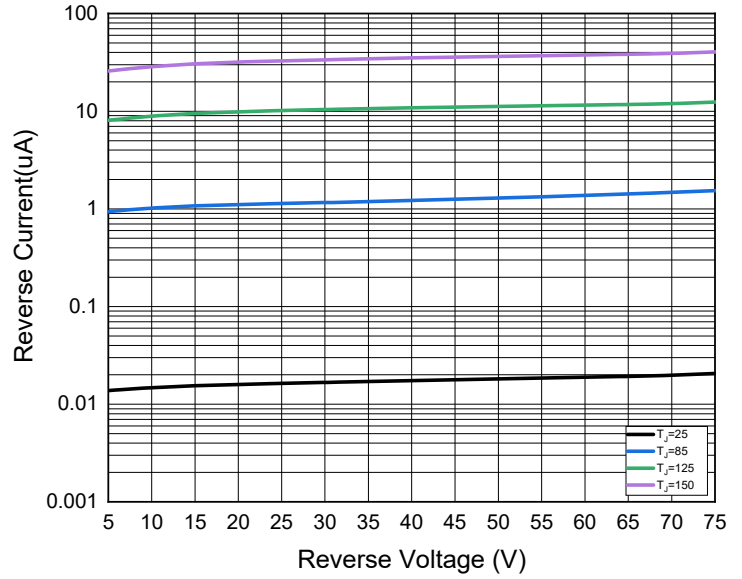


Fig.4: Reverse Characteristics

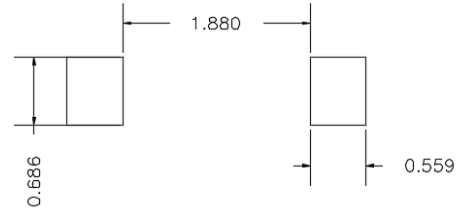
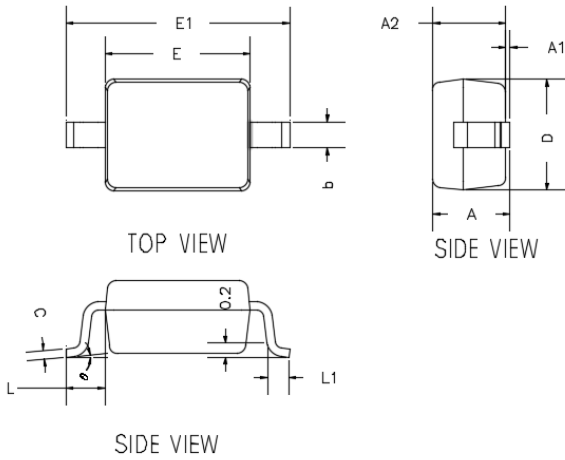




# 1N4448WSQ

## ■ Outline Dimensions

SOD-323

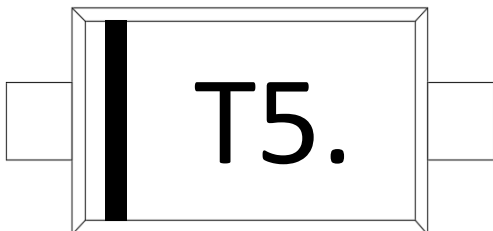


UNIT: mm

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
θ	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



# 1N4448WSQ

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