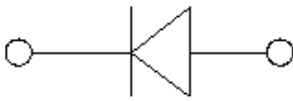


## High Speed Switching Diode



### Features

- Epoxy meets UL-94 V-0 flammability rating
- 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:** 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
Peak Forward Surge Current	$I_{FSM}$	A	$t_p=1\mu\text{s}$	2
Average Forward Current	$I_{FAV}$	mA		150
Power Dissipation	$P_{tot}$	mW		200
Thermal Resistance	$R_{thJA}$	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	VALUE
Maximum Forward Voltage	$V_F$	V	$I_F=10\text{mA}$	1.0
Maximum Reverse Current	$I_R$	nA	$V_R=20\text{V}$	25
	$I_R$	$\mu\text{A}$	$V_R=75\text{V}$	1.0
Minimum Breakdown Voltage	$V_R$	V	$I_R=1\mu\text{A}$	75
Maximum Diode Capacitance	$C_D$	pF	$V_R=V_F=0\text{V}$ , $f=1\text{MHz}$	4
Maximum Reverse Recovery Time	$t_{rr}$	ns	$I_F=50\text{mA}$ , $I_{rr}=0.1I_R$ , $R_L=100\Omega$	4

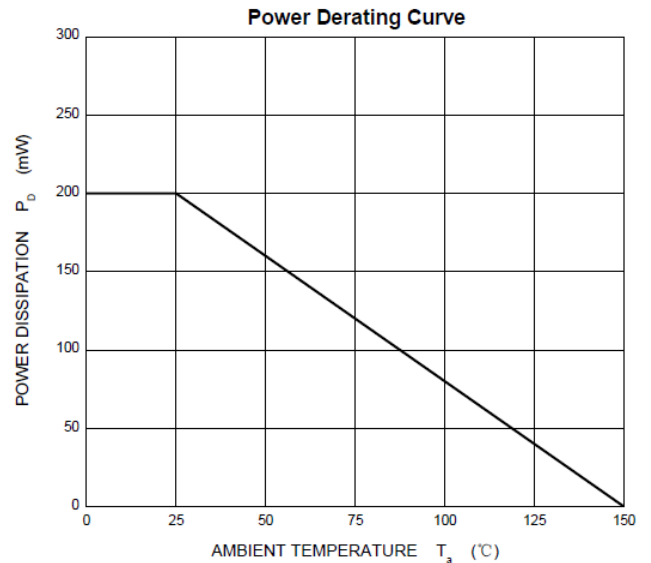
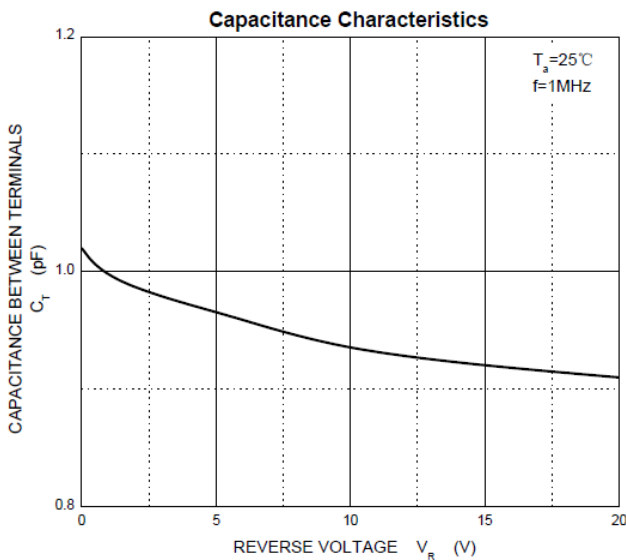
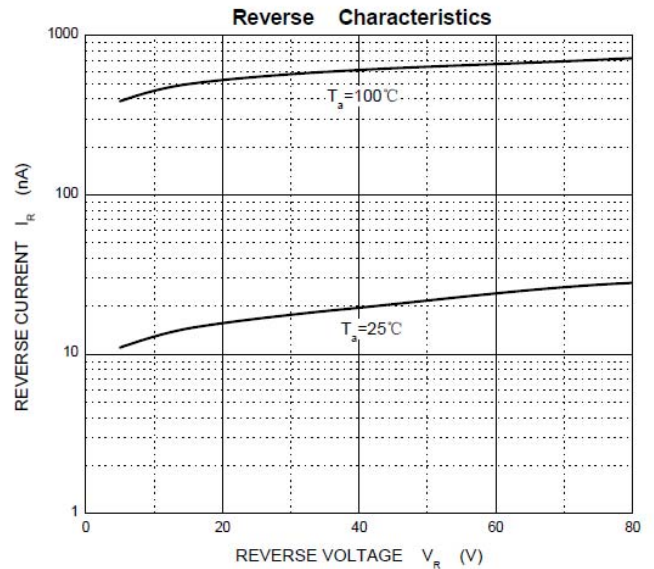
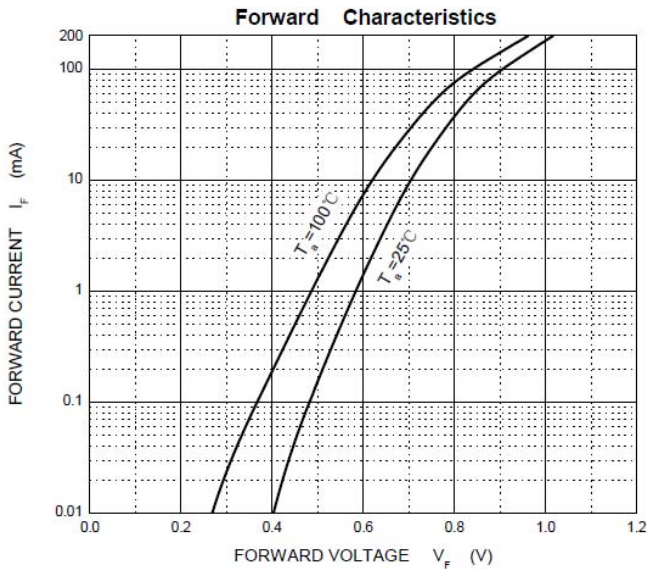


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## Ordering Information (Example)

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
1N4148WSQ	F2	Approximate 0.004	3000	30000	120000	7" reel

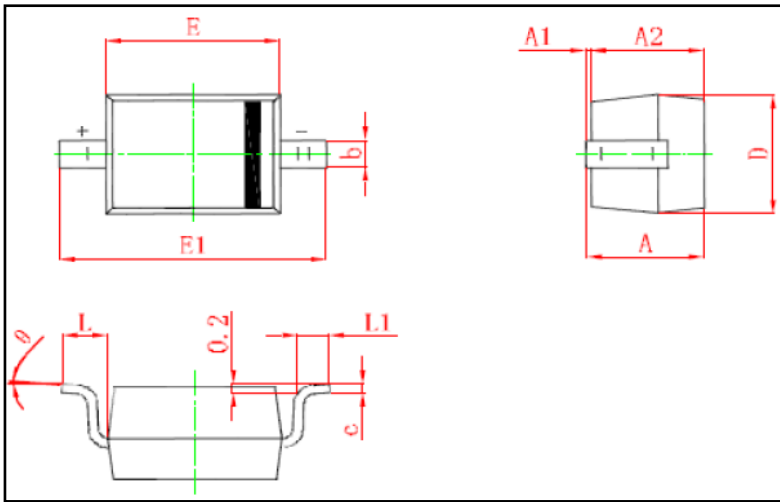
## Characteristics (Typical)





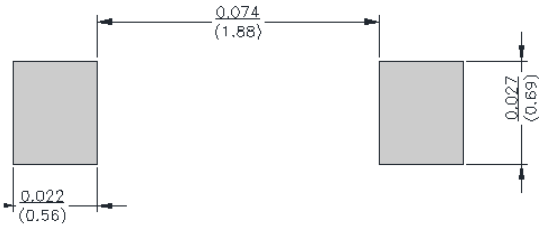
# 1N4148WSQ

## ■ Outline Dimensions



Symbol	Min.(mm)	Max.(mm)
A		1.000
A1	0.000	0.100
A2	0.800	0.900
b	0.250	0.350
c	0.080	0.150
D	1.200	1.400
E	1.600	1.800
E1	2.500	2.700
L	0.475REF	
L1	0.250	0.400
$\theta$	0°	8°

## ■ Soldering Footprint



Unit: Inch(mm)



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