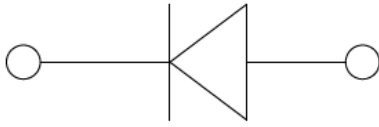


High Speed Switching Diode



SOD-123

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:** SOD123
- **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
Reverse Voltage	V_R	V		75
Repetitive Peak Reverse Voltage	V_{RRM}	V		100
Average Forward Current	I_{FAV}	mA		150
Repetitive Peak Forward Current	I_{FRM}	mA		300
Peak Forward Surge Current	I_{FSM}	A	Pulse width=1 us Pulse width=1 s	2 1
Power Dissipation	P_{tot}	mW		400
Thermal Resistance Junction to Ambient	R_{thJA}	K/W		315
Maximum Junction Temperature	T_j	$^\circ\text{C}$		-55 to +150
Storage Temperature Range	T_{stg}	$^\circ\text{C}$		-55 to +150



1N4148WQ

■ 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 =20V	0.025
			V _R =75V	1.0
Breakdown Voltage	V _R	V	I _R =10μA	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

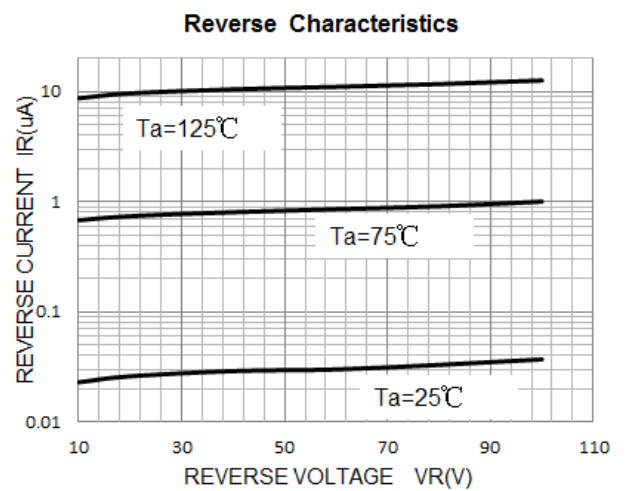
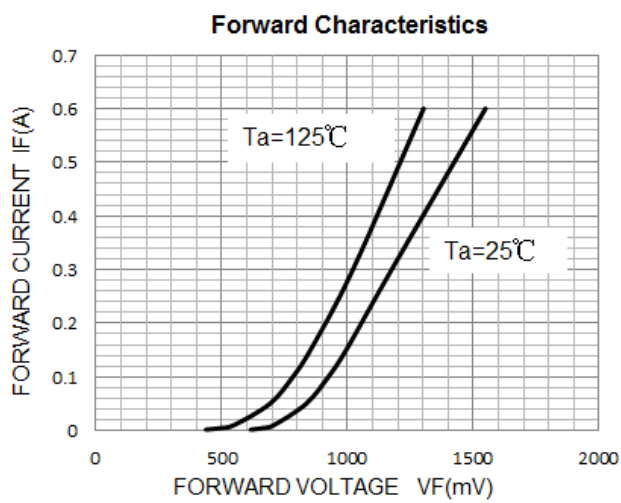
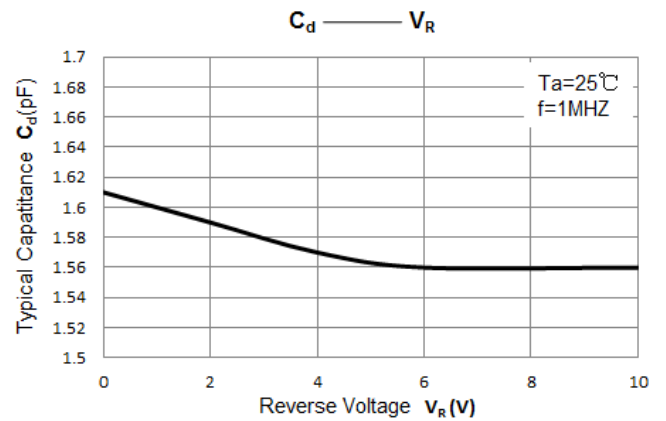
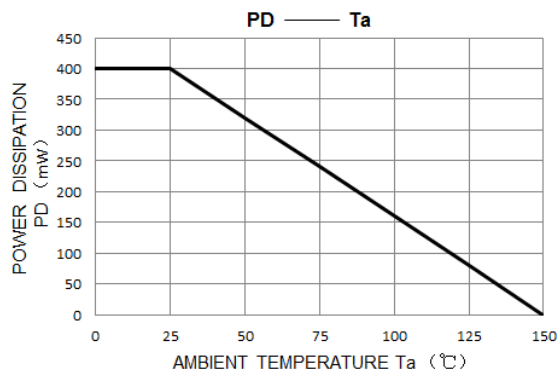
■ Ordering Information (Example)

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
1N4148WQ	F2	Approximate 0.010	3000	30000	120000	7" reel



1N4148WQ

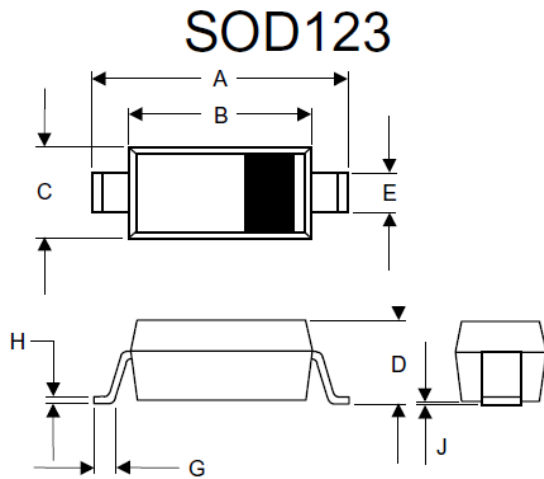
■ Characteristics (Typical)





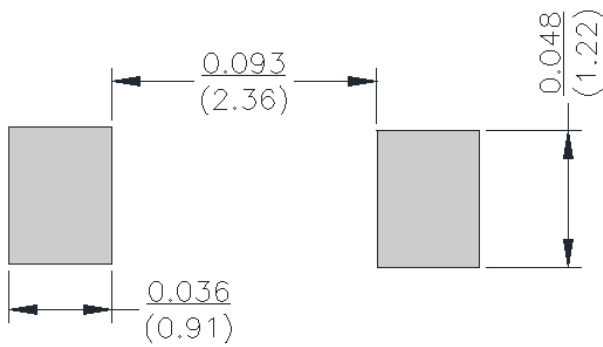
1N4148WQ

■ Outline Dimensions



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.140	.152	3.55	3.85	
B	.100	.112	2.55	2.85	
C	.055	.071	1.40	1.80	
D	-----	.053	-----	1.35	
E	.012	.031	0.30	.78	
G	.006	-----	0.15	-----	
H	-----	.01	-----	.25	
J	-----	.006	-----	.15	

■ Soldering Footprint



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



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