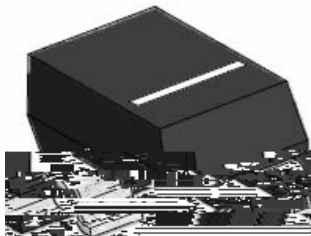


High Speed Switching Diode

Features

- Epoxy meets UL - 94 V - 0 flame rating and halogen free
- Moisture Sensitivity Level 1
- V_F 75 V
- I_{FAV} 150 mA
- Part no. with suffix means AEC - Q101 qualified



e

Mechanical Data

- Case: SOD123
- Terminals: Tin plated leads, solderable per J - STD - 002 and JESD22 - B102
- Polarity: Cathode line denotes the cathode end

SOD123

Maximum Ratings ($T_a = 25^\circ\text{C}$)

PARAMETER	SYMBOL	UNIT	CONDITIONS	VALUE
RMS Reverse Voltage	V_{RRM}	V		75
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage	V_{RRM} V_{RWM}	V		100
DC Blocking Voltage	V_F	V		75
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			-55 to +150
Storage Temperature Range	T_{stg}			-55 to +150



1N4148WQ

Electrical Characteristics

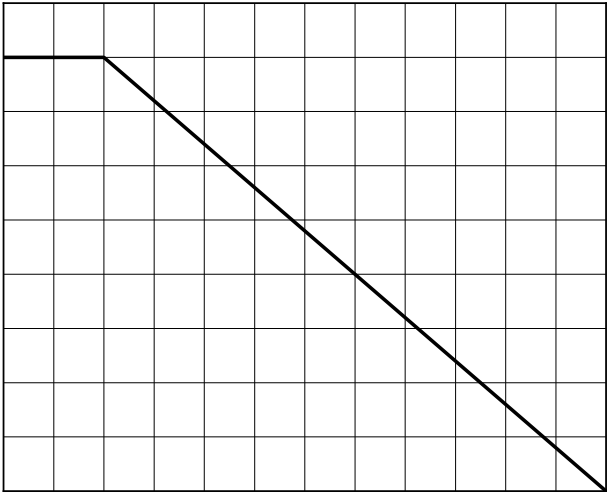
PARAMETER	SYMBOL	UNIT	CONDITIONS	MIN	MAX
Forward Voltage	VF	V	IF = 1mA		0.715
			IF = 10 mA		0.855
			IF = 50 mA		1.0
			IF = 150 mA		1.25
Reverse Current	IR	μA	VR = 20 V		0.025
			VR = 75 V		1.0
Breakdown Voltage	VZ	V	IR = 10 μA	7.5	
Diode Capacitance	GD	pF	VR = 0 V, f = 1MHz		4
Reverse Recovery Time	trr	ns	IF = 10 mA, IRR = 0.1 mA		4



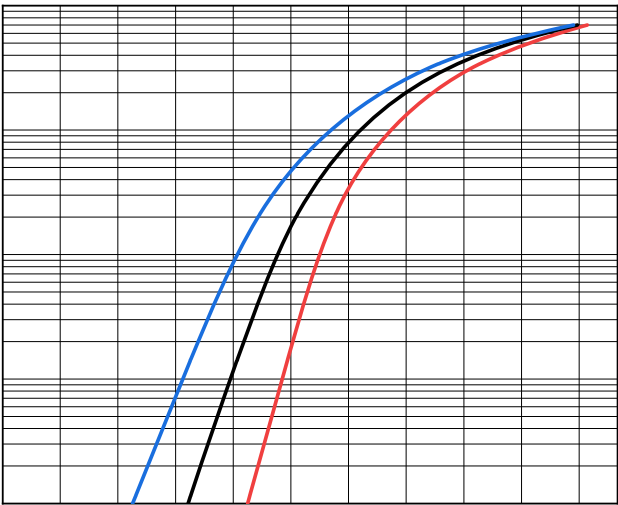
Characteristics (Typical)

3RZHU 'LVVLSDWLRQ P:

) L J . 3



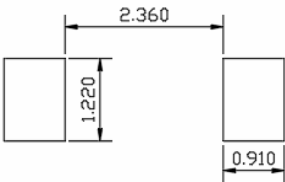
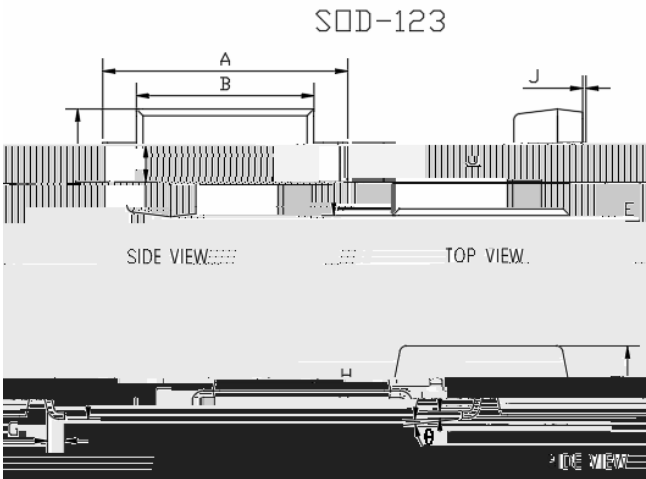
7_S





1N4148WQ

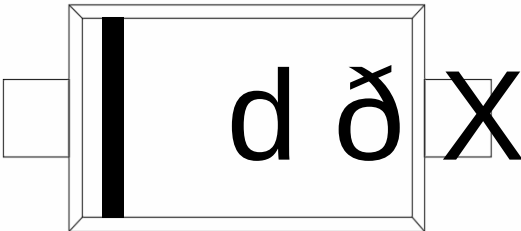
vOutline Dimensions



UNIT : mm
SUGGESTED SOLDER PAD LAYOUT

DIMENSIONS				
DIM	INCHES		MM	
	MIN	MAX	MIN	MAX
A	0.140	0.152	3.550	3.850
B	0.100	0.112	2.550	2.850
C	0.055	0.071	1.400	1.800
D	0.037	0.053	0.950	1.350
E	0.020	0.028	0.510	0.710
F	0.150	0.450		
G			0.006	0.018
H	0.080	0.250	0.003	0.010
J	0.000	0.150	0.000	0.006
θ	0	8°	0	8°

yMarking Information



Note:

- 1 . All marking is at middle of the product body
\$00 PDUNLQJ LV LQ ODVHU PDUNLQJ
%RG\ FRORU %ODFN

