SILICON EPITAXIAL SWITCHING DIODE

1N4148W

SOD-123
PLASTIC PCAKAGE

1N4148W= A2 with cathode band

Fast Switching Diode

ABSOLUTE MAXIMUM RATINGS (T_a=25ºC)

DESCRIPTION	SYMBOL	VALUE	UNIT
Continuous Reverse Voltage	V_R	75	V
Repetitive Peak Reverse Voltage	V_{RRM}	100	V
Average recified Current half wave rectification with resistive load f ≥50 Hz	*$I_{F\ (AV)}$	150	mA
Surge Forward Current t < 1s and T_j=25ºC	I_{FSM}	500	mA
Power Dissipation	*P_{tot}	400	mW
Junction Temperature	T_j	150	ºC
Storage Temperature Range	T_{stg}	- 65 to +150	ºC

THERMAL RESISTANCE

Junction to Ambient in free air	*$R_{th\ (j-a)}$	450	ºC/W

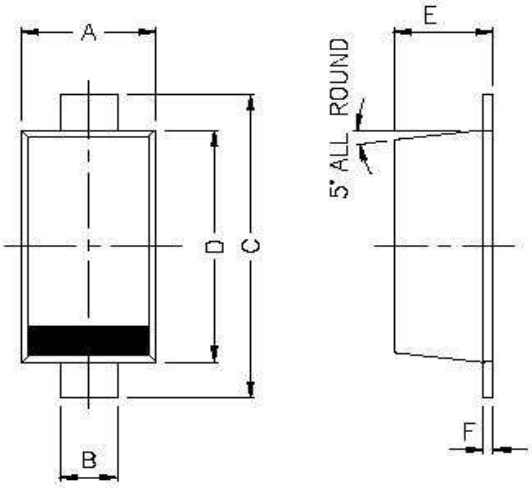
***Valid provided that electrodes are kept at ambient Temperature**

ELECTRICAL CHARACTERISTICS (T_{amb}=25ºC unless specified otherwise)

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	MAX	UNIT
Forward Voltage	V_F	I_F=10mA		1.0	V
Reverse Current	I_R	V_R=20V		25	nA
		V_R=20V, T_j=150ºC		50	µA
		V_R=75V		5.0	µA
DYNAMIC CHARACTERISTICS					
Diode Capacitance	C_d	V_R=0V, f=1MHz		4.0	pF
Voltage Rise When Switching On (tested with 50ms pulses)	V_{fr}	tested with=50mA pulses, t_p=0.1µs, rise time=<30 ns, t_p= (5 to 100) KHz		2.5	ns
Reverse Recovery Time	t_{rr}	I_F=10mA, to I_R=1mA, R_L=100 Ω, at V_R=6V		4.0	ns
Rectification Efficiency	ηv	f=100MHz, V_{RF}=2V	0.45		

1N4148W Rev020905E

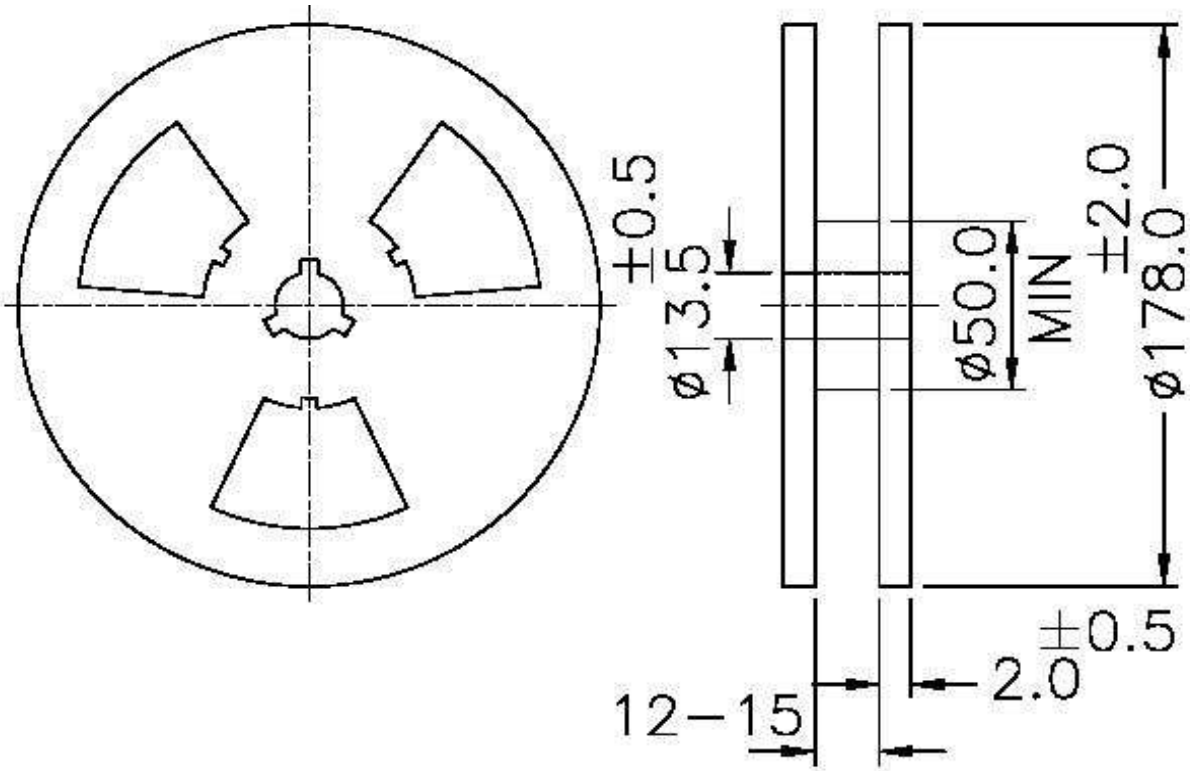
PACKAGE SOD-123 FL



DIM	MIN.	MAX.
A	1.55	1.65
B	0.5	0.6
C	3.7	3.9
D	2.6	2.7
E	1.05	1.15
F	0.127	0.135

All dimensions are in mm

CATHODE IS MARKED BY BAND



ALL DIMENSIONS ARE IN mm
REEL ø 178 mm (7")
3000 Pcs / REEL

Component Disposal Instructions

1. CDIL Semiconductor Devices are RoHS compliant, customers are requested to please dispose as per prevailing Environmental Legislation of their Country.

2. In Europe, please dispose as per EU Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE).

Disclaimer

The product information and the selection guides facilitate selection of the CDIL's Semiconductor Device(s) best suited for application in your product(s) as per your requirement. It is recommended that you completely review our Data Sheet(s) so as to confirm that the Device(s) meet functionality parameters for your application. The information furnished in the Data Sheet and on the CDIL Web Site/CD are believed to be accurate and reliable. CDIL however, does not assume responsibility for inaccuracies or incomplete information. Furthermore, CDIL does not assume liability whatsoever, arising out of the application or use of any CDIL product; neither does it convey any license under its patent rights nor rights of others. These products are not designed for use in life saving/support appliances or systems. CDIL customers selling these products (either as individual Semiconductor Devices or incorporated in their end products), in any life saving/support appliances or systems or applications do so at their own risk and CDIL will not be responsible for any damages resulting from such sale(s).

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