SCHOTTKY BARRIER SWITCHING DIODE

SD103AW - SD103CW

SOD-123
PLASTIC PACKAGE

Marking: Date Code
Polarity: Cathode Band

SD103AW=S4
SD103BW=S5
SD103CW=S6

ABSOLUTE MAXIMUM RATINGS

DESCRIPTION	SYMBOL	SD103AW	SD103BW	SD103CW	UNIT
Repetitive Peak Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	40	30	20	V
RMS Reverse Voltage	$V_{R\ (RMS)}$	28	21	14	V
Forward Continuous Current	$*I_{FM}$	350			mA
Non Repetitive Peak Forward Surge Current at t ≤ 1s	I_{FSM}	1.5			A
Power Dissipation T_a=25ºC	$*P_D$	400			mW
Operating and Storage Temperature Range	T_j, T_{stg}	- 65 to +125			ºC

THERMAL RESISTANCE

Junction to Ambient in free air	$*R_{th\ (j-a)}$	300	ºC/W

ELECTRICAL CHARACTERISTICS (T_a=25º C unless specified otherwise)

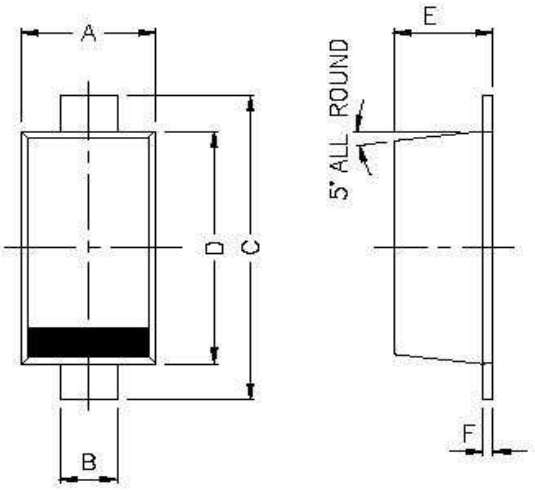
DESCRIPTION	SYMBOL	TEST CONDITION		MIN	MAX	UNIT
Reverse Breakdown Voltage	$**V_{(BR)R}$	I_R=100µA				
		SD103AW		40		V
		SD103BW		30		V
		SD103CW		20		V
Forward Voltage	$**V_F$	I_F=20mA			0.37	V
		I_F=200mA			0.60	V
Reverse Current	$**I_R$	V_R=30V	**SD103AW**		5.0	µA
		V_R=20V	**SD103BW**		5.0	µA
		V_R=10V	**SD103CW**		5.0	µA

DYNAMIC CHARACTERISTICS

DESCRIPTION	SYMBOL	TEST CONDITION	TYP	UNIT
Total Capacitance	C_T	V_R=0V, f=1MHz	28	pF
Reverse Recovery Time	t_{rr}	I_F= I_R =200mA, I_{rr}=0.1 x I_R, R_L=100Ω	10	ns

***Mounted on FR-4 board with recommended pad layout**
****Short duration test pulse used to minimize self heating effect**

PACKAGE SOD–123 FL

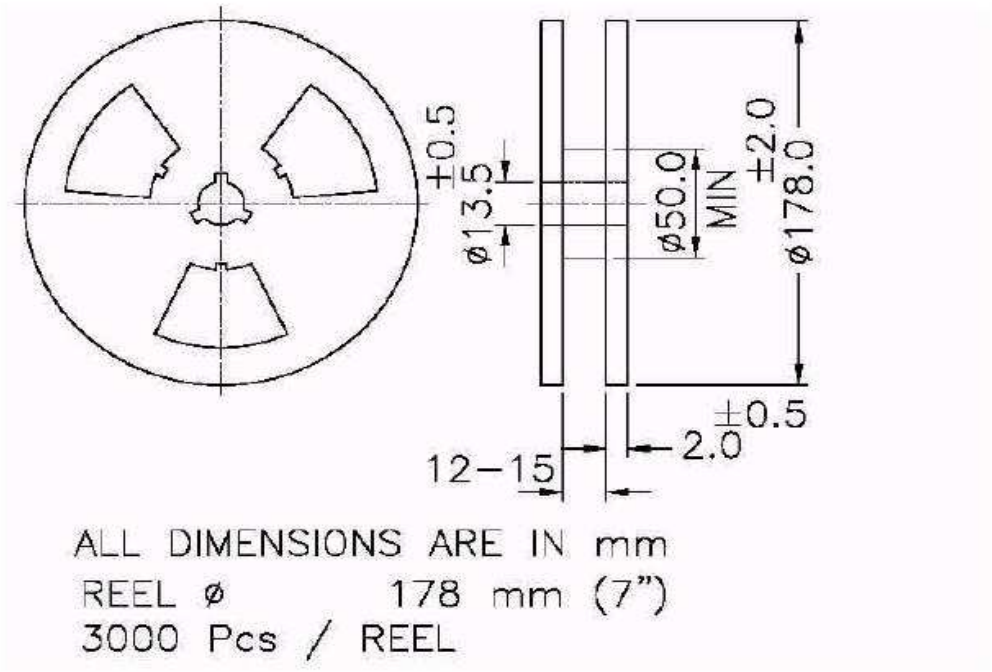


DIM	MIN.	MAX.
A	1.55	1.65
B	0.5	0.6
C	3.7	3.9
D	2.6	2.7
E	1.05	1.15
F	0.127	0.135

All dimensions are in mm

CATHODE IS MARKED BY BAND

SD103AW_103CW Rev040306E



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 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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