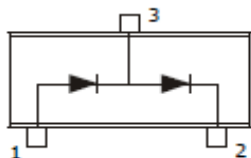
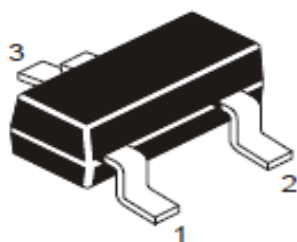


SILICON PLANAR DUAL SWITCHING DIODES

CMBD7000



Pin Configuration

1 = ANODE
2 = CATHODE
3 = ANODE/
CATHODE

SOT-23

Formed SMD Package

For Lead Free Parts,
Device Part # will be
Prefixed with "T"

Marking : 5C

ABSOLUTE MAXIMUM RATINGS ($T_A = 25^\circ\text{C}$, unless otherwise specified)

PARAMETER	SYMBOL	VALUE	UNIT
Non-Repetitive Peak Reverse Voltage	V_{RM}	100	V
Repetitive Peak Reverse Voltage	V_{RRM}	75	V
Working Peak Reverse Voltage	V_{RWM}		
DC Blocking Voltage	V_R		
Forward Continuous Current (Note 1)	I_{FM}	300	mA
Non Repetitive Peak Forward Surge Current $t = 1\mu\text{s}$	I_{FSM}	2.0	A
$t = 1\text{s}$		1.0	A
Power Dissipation (Note 1)	P_D	350	mW
Storage and Operating Temperature Range	T_S, T_{OPR}	-65 to +150	$^\circ\text{C}$

THERMAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$, unless otherwise specified)

Junction to Ambient in Free Air (Note 1)	$R_{th(J-A)}$	357	$^\circ\text{C/W}$
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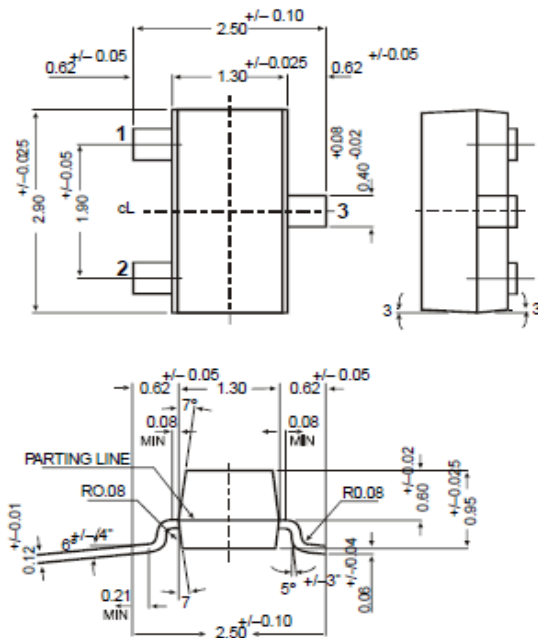
ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITION	MIN	MAX	UNIT
Reverse Breakdown Voltage	$V_{(BR)R}$	$I_R = 100\mu\text{A}$	100		V
Forward Voltage	V_F	$I_F = 1\text{mA}$		0.7	V
		$I_F = 10\text{mA}$		0.82	V
		$I_F = 50\text{mA}$		1.1	V
		$I_F = 150\text{mA}$		1.25	V
Reverse Current	I_R	$V_R = 20\text{V}$		25	nA
		$V_R = 50\text{V}$		1.0	μA
		$V_R = 100\text{V}$		3.0	μA
Total Capacitance	C_T	$V_R = 0\text{V}, f = 1\text{MHZ}$		2.0	pF
Reverse Recovery Time	t_{rr}	$I_F = I_R = 10\text{mA},$ $I_{rr} = 0.1 * I_R, R_L = 100\Omega$		4.0	ns

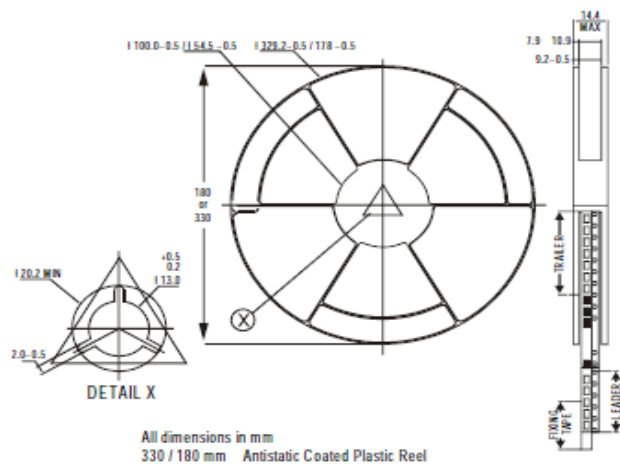
Note 1. Device mounted on FR-4 board

SOT-23 PACKAGE OUTLINE AND DIMENSION

SOT-23 Formed SMD Package



SOT-23 Package Reel Information
Reel specifications for Packing (13"/17" reels)



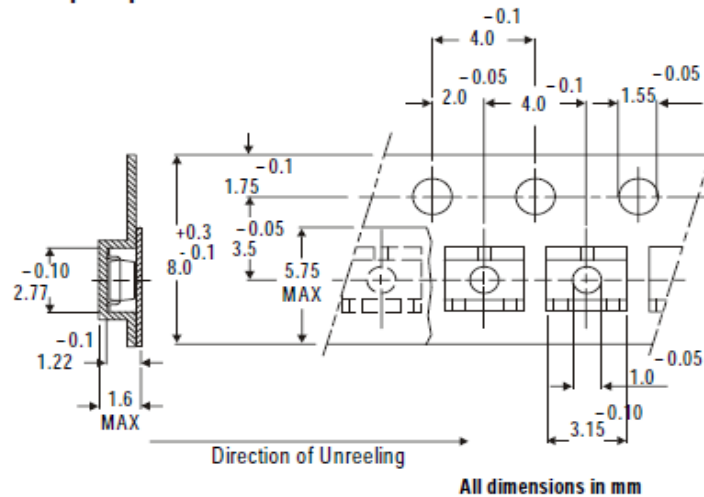
330 / 180 mm Antistatic Coated Plastic Reel

NOTES:

	8mm Tape	8mm Tape
	Size of Reel	Size of Reel
	330 mm (13")	180 mm (7")
No. of Devices	10,000 Pcs	3,000 Pcs

1. The bandolier of 330 mm reel contains at least 10,000 devices.
2. The bandolier of 180 mm reel contains at least 3,000 devices.
3. No more than 0.5% missing devices / reel. 50 empty compartments for 330 mm reel. 15 empty compartments for 180 mm reel.
4. Three consecutive empty places might be found provided this gap is followed by 6 consecutive devices.
5. The carrier tape (leader) starts with at least 75 empty positions (equivalent to 330 mm). In order to fix the carrier tape a self adhesive tape of 20 to 50 mm is applied. At the end of the bandolier at least 40 empty positions (equivalent to 160 mm) are there.

Tape Specification for SOT-23 Surface Mount Device





Continental Device India Pvt. Limited
An ISO/TS 16949, ISO 9001 and ISO 14001 Certified Company



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 Discrete 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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