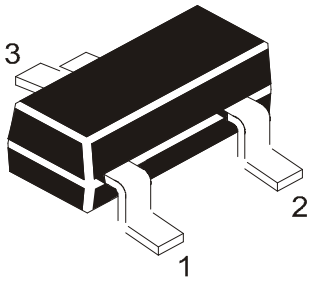
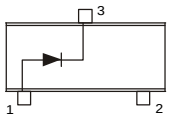
SILICON PLANAR SWITCHING DIODE

CMBD4448

SOT-23
Formed SMD Package





Pin Configuration
1 = ANODE
2 = NC
3 = CATHODE

Marking
CMBD4448 - CA2

For General Purpose Switching Applications

ABSOLUTE MAXIMUM RATINGS

DESCRIPTION	SYMBOL	VALUE	UNIT
Non Repetitive Peak Reverse Voltage	V_{RM}	100	V
Peak Repetitive Reverse Voltage	V_R	75	V
Forward Continuous Current	*I_{FM}	500	mA
Average Rectified Output Current	*I_O	250	mA
Non Repetitive Peak Forward Surge Current @ t=1ms	I_{FSM}	4	A
Non Repetitive Peak Forward Surge Current @ t=1s	I_{FSM}	2	A
Power Dissipation @ T_a=25ºC	*P_D	350	mW
Operating and Storage Junction Temperature Range	T_j, T_{stg}	- 65 to + 150	ºC

THERMAL RESISTANCE

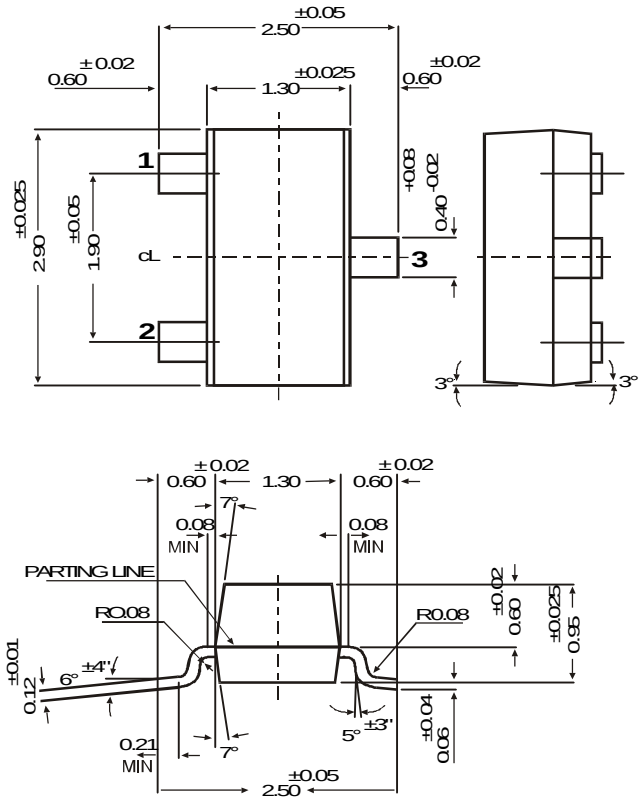
Junction to Ambient in free air	*$R_{th\ (j\text{-}a)}$	357	K/W

*** Valid provided that terminals are kept at ambient temperature**

ELECTRICAL CHARACTERISTICS (T_a=25ºC unless specified otherwise)

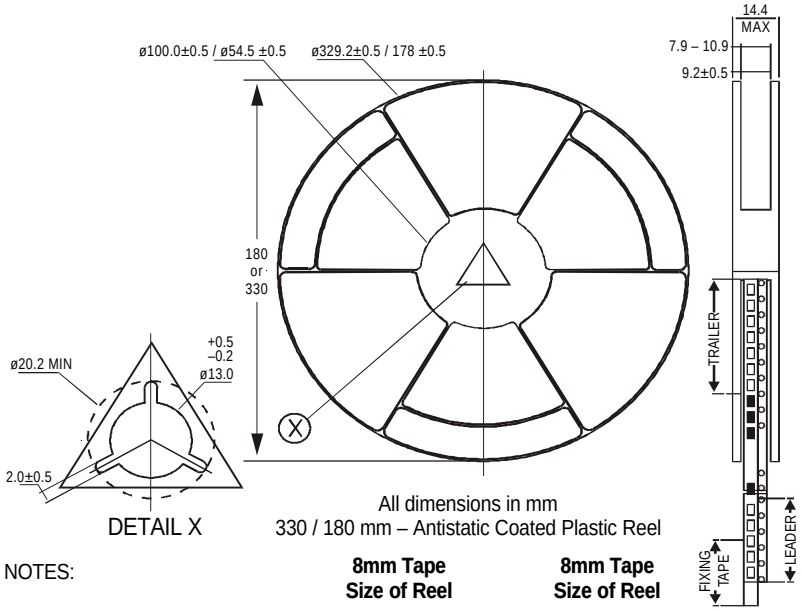
DESCRIPTION	SYMBOL	TEST CONDITION	MIN	MAX	UNIT
Forward Voltage	V_F	I_F = 5 mA	0.62	0.720	V
		I_F = 10 mA		0.855	V
		I_F = 100 mA		1.0	V
		I_F = 150 mA		1.250	V
Reverse Voltage Leakage Current	I_R	V_R=75V		2.5	µA
		V_R=75V, T_j=150ºC		50	µA
		V_R=25V, T_j=150ºC		30	µA
		V_R=20V		25	nA
Diode Capacitance	C_d	V_R=0V, f=1MHz		4.0	pF
Reverse Recovery Time	t_{rr}	I_F=I_R=10mA, I_{rr}=0.1xI_R, R_L=100Ω		4.0	ns

SOT-23 Formed SMD Package



SOT-23 Package Reel Information

Reel Specifications for W Packing (13") and 7"



DETAIL X

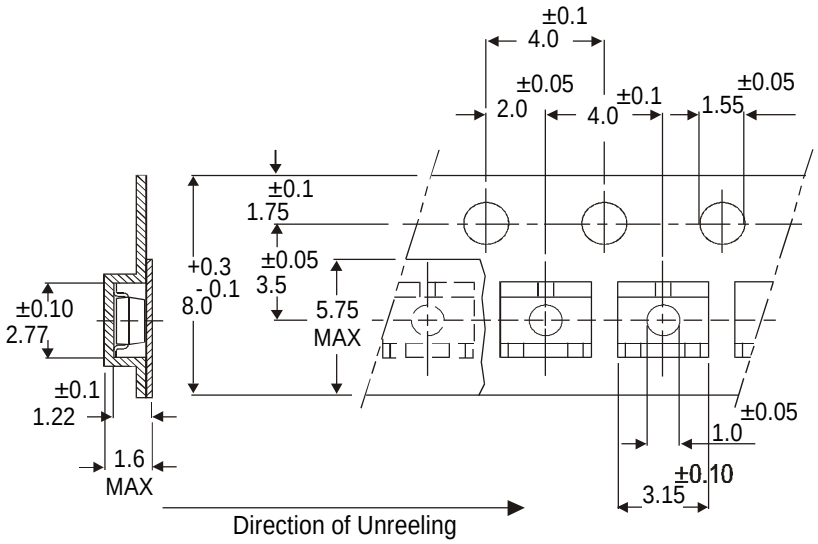
All dimensions in mm
330 / 180 mm – Antistatic Coated Plastic Reel

NOTES:

	8mm Tape Size of Reel	8mm Tape 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



Packing Detail

All dimensions in mm

PACKAGE	STANDARD PACK		INNER CARTON BOX		OUTER CARTON BOX		
	Details	**Net Weight /Qty**	**Size**	**Qty**	**Size**	**Qty**	**Gr Wt**
SOT-23 T&R	**3K/reel**	**136 gm/3K pcs**	**3" x 7.5" x 7.5"**	**12 K**	**17" x 15" x 13.5"**	**192 K**	**12 kgs**
			9" x 9" x 9"	**51 K**	**19" x 19" x 19"**	**408 K**	**28 kgs**
	10K/reel	**415 gm/10K pcs**	**13" x 13" x 0.5"**	**10 K**	**17" x 15" x 13.5"**	**300 K**	**16 kgs**

Disclaimer

The product information and the selection guides facilitate selection of the CDIL's Discrete 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 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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