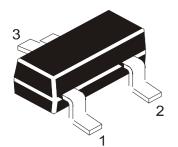
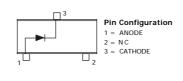




An ISO/TS 16949, ISO 9001 and ISO 14001 Certified Company

SILICON PLANAR SWITCHING DIODE





CMBD4448

SOT-23 Formed SMD Package

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 ₀	250	mA	
Non Repetitive Peak Forward Surge Current @ t=1ms	I _{FSM}	4	А	
Non Repetitive Peak Forward Surge Current @ t=1s	I _{FSM}	2	А	
Power Dissipation @ T _a =25°C	*P _D	350	mW	
Operating and Storage Junction Temperature Range	T _j , T _{stg}	- 65 to + 150		

THERMAL RESISTANCE

Junction to Ambient in free air	*R _{th (j-a)}	357	K/W
---------------------------------	------------------------	-----	-----

^{*} Valid provided that terminals are kept at ambient temperature

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

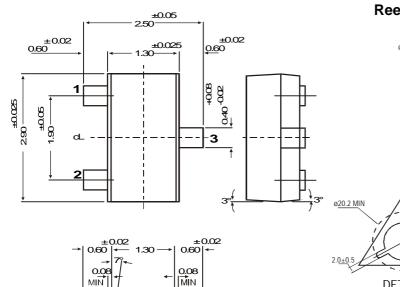
DESCRIPTION	SYMBOL	TEST CONDITION	MIN	MAX	UNIT	
Forward Voltage	V _F	$I_F = 5 \text{ mA}$	0.62	0.720	V	
		$I_F = 10 \text{ mA}$		0.855	V	
		$I_F = 100 \text{ mA}$		1.0	V	
		$I_F = 150 \text{ mA}$		1.250	V	
Reverse Voltage Leakage Current	I_R	V _R =75V		2.5	μΑ	
		V _R =75V, T _j =150°C		50	μΑ	
		V _R =25V, T _j =150°C		30	μΑ	
		V _R =20V		25	nA	
Diode Capacitance	C _d	V _R =0V, f=1MHz		4.0	pF	
Reverse Recovery Time	+	I _F =I _R =10mA,		4.0	ns	
INEVELSE INECOVERY TIME	t _{rr}	$I_{rr}=0.1xI_{R}, R_{L}=100\Omega$	4.0		113	

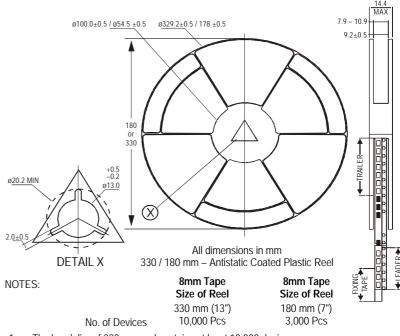
SOT-23^{taSheet4U.com} Formed SMD Package

SOT-23 Formed SMD Package

±0.05 2.50 ←

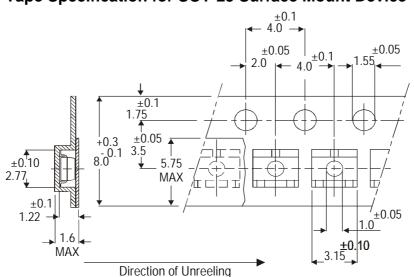
SOT-23 Package Reel Information Reel Specifications for W Packing (13") and 7"





- The bandolier of 330 mm reel contains at least 10,000 devices.
- The bandolier of 180 mm reel contains at least 3,000 devices.
- No more than 0.5% missing devices / reel. 50 empty compartments for 330 mm reel. 15 empty compartments for 180 mm reel.
- Three consecutive empty places might be found provided this gap is followed by 6 consecutive devices.
- 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

PARTING LINE

MIN

All dimensions in mm

PACKAGE	STANDARD PACK		INNER CARTON BOX		OUTER CARTON BOX		
	Details	Net Weight/Oty	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

Notes CMBD4448

SOT-23
Formed SMD Package

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).

CDIL strives for continuous improvement and reserves the right to change the specifications of its products without prior notice.



CDIL is a registered Trademark of
Continental Device India Limited
C-120 Naraina Industrial Area, New Delhi 110 028, India.
Telephone + 91-11-579 6150 Fax + 91-11-579 9569, 579 5290
e-mail sales@cdil.com www.cdil.com