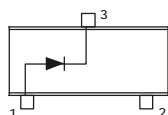
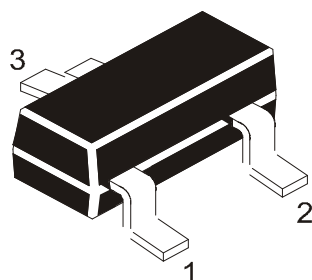


SILICON PLANAR SWITCHING DIODE

CMBD4448


Pin Configuration
1 = ANODE
2 = NC
3 = CATHODE

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	$*I_O$	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 @ $T_a=25^\circ C$	$*P_D$	350	mW
Operating and Storage Junction Temperature Range	T_j, T_{stg}	- 65 to + 150	$^\circ C$

THERMAL RESISTANCE

Junction to Ambient in free air	$*R_{th(j-a)}$	357	K/W
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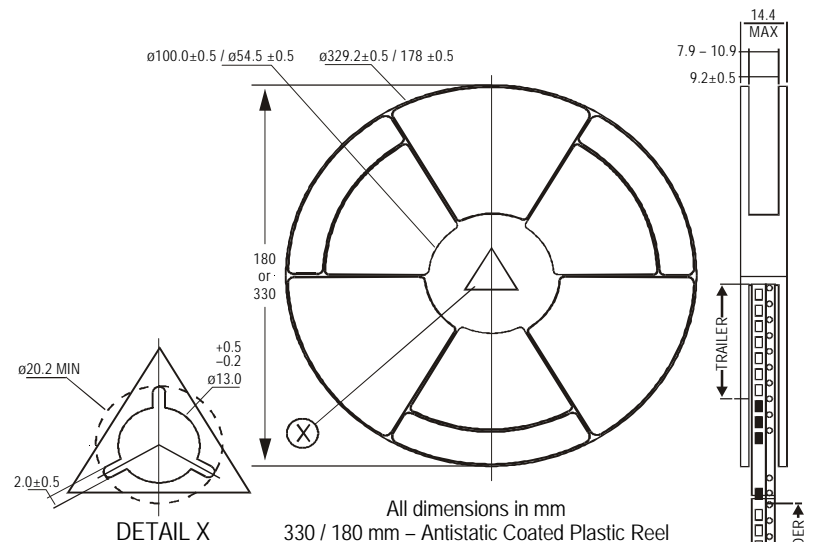
* Valid provided that terminals are kept at ambient temperature

ELECTRICAL CHARACTERISTICS ($T_a=25^\circ C$ 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	μA
		$V_R=75V, T_j=150^\circ C$		50	μA
		$V_R=25V, T_j=150^\circ C$		30	μA
		$V_R=20V$		25	nA
Diode Capacitance	C_d	$V_R=0V, f=1MHz$		4.0	pF
Reverse Recovery Time	t_{rr}	$I_F=I_R=10mA,$ $I_{rr}=0.1 \times I_R, R_L=100\Omega$		4.0	ns

SOT-23 Package Reel Information

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



Technical drawing of a multi-layer printed circuit board (PCB) showing dimensions and tolerances. The drawing includes a cross-section on the left and a top view on the right.

Cross-section dimensions (left):

- Prepreg thickness: 2.77 ± 0.10
- Core thickness: 1.22 ± 0.1
- Prepreg thickness: 1.6 MAX
- Total thickness: 8.0 ± 0.3

Top view dimensions (right):

- Section width: 4.0 ± 0.1
- Hole diameter: 2.0 ± 0.05
- Section width: 4.0 ± 0.1
- Section width: 1.55 ± 0.05
- Section width: 1.0 ± 0.05
- Section width: 3.15 ± 0.10
- Section width: 5.75 MAX
- Section width: 3.5 ± 0.05
- Section width: 1.75 ± 0.1

Direction of Unreeling: Indicated by a dashed line and an arrow pointing to the right.

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/feel	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/feel	415 gm/10K pcs	13" x 13" x 0.5"	10 K	17" x 15" x 13.5"	300 K	16 kgs

Disclaimer

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