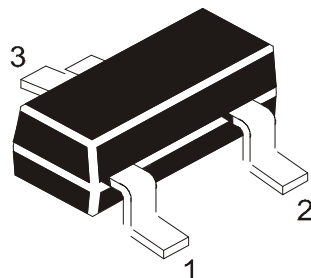


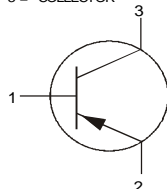
PNP SILICON PLANAR EPITAXIAL TRANSISTOR

CMBT8550



PIN CONFIGURATION (PNP)

1 = BASE
2 = EMITTER
3 = COLLECTOR



SOT-23

Formed SMD Package

ABSOLUTE MAXIMUM RATINGS

DESCRIPTION	SYMBOL	VALUE	UNITS
Collector Base Voltage	V_{CBO}	30	V
Collector Emitter Voltage	V_{CEO}	25	V
Emitter Base Voltage	V_{EBO}	6	V
Collector Current Continuous	I_C	800	mA
Collector Dissipation @ $T_a=25^\circ\text{C}$	P_C	250	mW
Operating and Storage Junction Temperature Range	T_j, T_{stg}	- 55 to +125	$^\circ\text{C}$

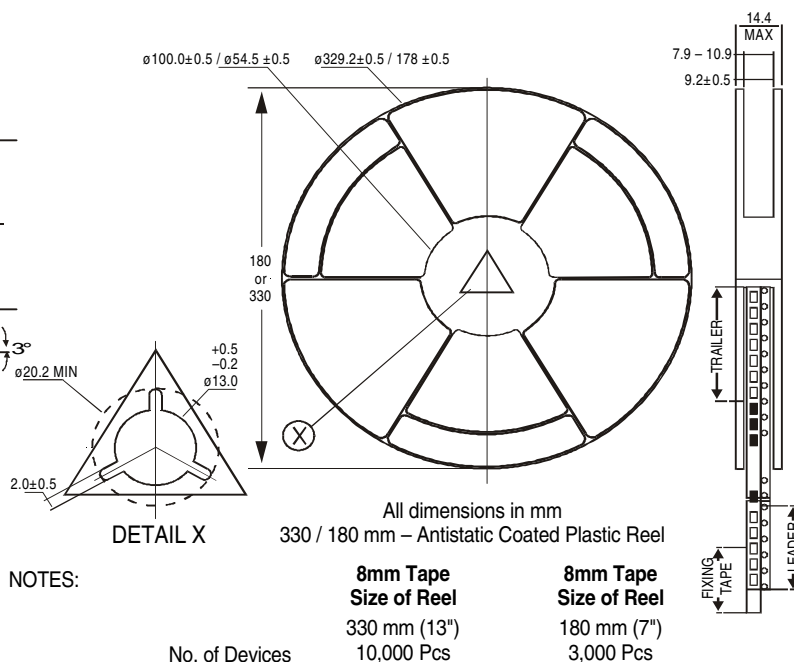
ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$ unless specified otherwise)

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNITS
Collector Base Voltage	V_{CBO}	$I_C=100\mu\text{A}, I_E=0$	30			V
Collector Emitter Voltage	V_{CEO}	$I_C=10\text{mA}, I_B=0$	25			V
Emitter Base Voltage	V_{EBO}	$I_E=10\mu\text{A}, I_C=0$	6			V
Collector Cut off Current	I_{CBO}	$V_{CB}=15\text{V}, I_E=0$			50	nA
Emitter Cut off Current	I_{EBO}	$V_{EB}=4\text{V}, I_C=0$			500	nA
DC Current Gain	h_{FE}	$I_C=5\text{mA}, V_{CE}=1\text{V}$ * $I_C=100\text{mA}, V_{CE}=1\text{V}$ $I_C=500\text{mA}, V_{CE}=1\text{V}$	45 100 40		400	
Collector Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=500\text{mA}, I_B=50\text{mA}$			0.5	V
Base Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=500\text{mA}, I_B=50\text{mA}$			1.2	V
Transition Frequency	f_T	$I_C=100\text{mA}, V_{CE}=10\text{V}, f=100\text{MHz}$	100			MHz
Output Capacitance	C_{ob}	$V_{CB}=10\text{V}, f=1\text{MHz}$			35	pF

CLASSIFICATIONS	CMBT8550	C	D	E
* h_{FE}	100 - 400	100 - 200	150 - 300	280 - 400
MARKING	55	55C	55D	55E

SOT-23 Package Reel Information

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



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.

Technical drawing of a 300mm diameter reel with 100mm diameter holes. The drawing includes a side view on the left showing the reel's profile with dimensions: total width 2.77, hole diameter 0.10, flange thickness 0.1, and mounting hole diameter 1.22. The front view on the right shows a 300mm diameter reel with 100mm diameter holes. Dimensions include: hole diameter 0.1, hole spacing 4.0, hole offset 0.05, hole diameter 0.1, hole offset 0.05, hole diameter 1.55, hole offset 0.05, hole diameter 1.0, hole offset 0.05, hole diameter 3.15, hole offset 0.10, and hole diameter 1.6 MAX. A dashed line indicates the direction of unreeling.

Direction of Unreeling

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 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).

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 + 91-11-2579 6150, 5141 1112 Fax + 91-11-2579 5290, 5141 1119
email@cdil.com www.cdilsemi.com