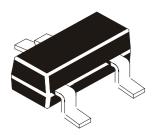


Continental Device India Limited

An ISO/TS16949 and ISO 9001 Certified Company



PNP EPITAXIAL PLANAR SILICON TRANSISTOR



PIN CONFIGURATION (PNP)

1 = BASE
2 = EMITTER
3 = COLLECTOR

2 = EMITTER 3 = COLLECTOR 1 CMBT200 CMBT200A SOT23

MARKING: AS BELOW

Designed for General Purpose Amplifier Applications.

ABSOLUTE MAXIMUM RATINGS(Ta=25deg C unless otherwise noted)

DESCRIPTION	SYMBOL		VALUE			UNIT
Collector -Base Voltage	VCBO			60		V
Collector -Emitter Voltage	VCEO			45		V
Emitter Base Voltage	VEBO			6.0		V
Collector Current - Continuous	IC			500		mA
Power Dissipation	PD			350		mW
Derate Above=25 deg C				2.8		mW/deg C
Operating And Storage Junction	Tj, Tstg			55 to +150)	deg C
Temperature Range						
Thermal Resistance						
Junction to Ambient	(Rth j-a)			357		deg C/W
ELECTRICAL CHARACTERISTICS (Ta			ed)			
DESCRIPTION		TEST CONDITION		MIN	MAX	UNIT
Collector -Base Voltage	VCBO	IC=10uA, IE=0		60	-	V
Collector -Emitter Voltage	VCEO	IC=1mA, IB=0		45	-	V
Emitter Base Voltage	VEBO	IE=10uA, IC=0		6.0	-	V
Collector Cut off Current	ICBO	VCB=50V, IE=0		-	50	nA
	ICES	VCE=4V, IE=0		-	50	nA
Emitter Cut off Current	IEBO	VEB=4V, IC=0		-	50	nA
DC Current Gain	hFE	IC=100uA,VCE=1V	CMBT200	80	-	
			CMBT200A	240	-	
		IC=10mA,VCE=1V	CMBT200	100	450	
			CMBT200A	300	600	
		IC=100mA,VCE=1V*	CMBT200A	100	-	
		IC=150mA,VCE=5V*	CMBT200	100	350	
			CMBT200A	100	-	

•	_	,		•	
DESCRIPTION	SYMBOL	TEST CONDITION	MIN	MAX	UNIT
Collector Emitter Saturation Voltage	VCE(Sat)	IC=10mA, IB=1mA	-	0.2	V
		IC=200mA, IB=20mA*	-	0.4	V
Base Emitter Saturation Voltage	VBE(Sat)	IC=10mA,VCE=1V	-	0.85	V
		IC=200mA, IB=20mA*	-	1.0	V
Dynamic Characteristics					
Transition Frequency	ft	VCE=20V,IC=20mA,	250	-	MHz

VCB=10V, f=1MHz

IC=100uA, VCE=5V

Rg=2 Kohms, f=1.0

 DEVICE
 CMBT200
 CMBT200A

 MARKING
 N2
 N2A

Cobo

NF

ELECTRICAL CHARACTERISTICS (Ta=25 deg C Unless Otherwise Noted)

Output Capacitance

Noise Figure

SOT-23 Formed SMD Package

±0.05 2.50 ←

ΜĪ

0.06

SOT-23 Package Reel Information Reel specifications for W" Packing (13" reel)

CMBT200

CMBT200A

CMBT200, A

pF

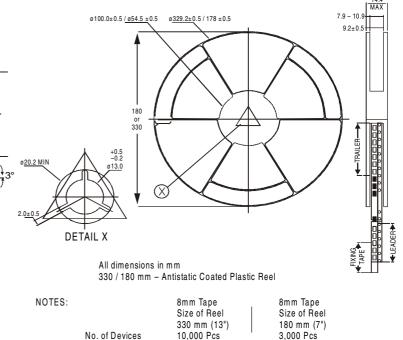
dB

dB

6.0

5.0

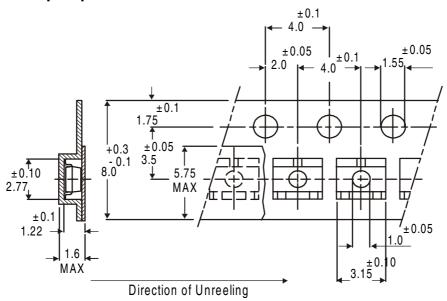
4.0



- 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.
- No more than 0.5% missing devices / reel. 50 empty compartments for 330 mm reel.
 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.

^{*}Pulse test: Pulse Width =300us, duty cycle=2%

Tape Specification for SOT-23 Surface Mount Device



All dimensions in mm

Packing Detail

PACKAGE	STANDARD PACK		INNER CARTON BOX		OUTER CARTON BOX		
	Details	Net Weight/Qty	Size	Qty	Size	Qty	Gr Wt
S0T-23 T&R	3K/reel	136 gm/3K pcs	3" x 7.5" x 7.5" 9" x 9" x 9"	12.0K 51.0K	17" x 15" x 13.5" 19" x 19" x 19"	192.0K 408.0K	12 kgs 28 kgs
	10K/reel	415 gm/10K pcs	13" x 13" x 0.5"	10.0K	17" x 15" x 13.5"	300.0K	16 kgs

Notes

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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Data Sheet