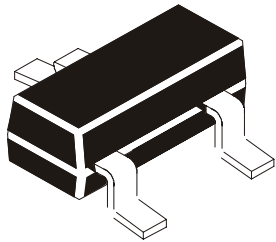


**NPN SILICON EPITAXIAL TRANSISTOR**

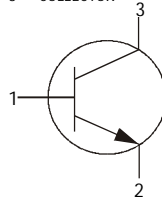
**CMBT2484  
SOT23**

**MARKING: 1U**



PIN CONFIGURATION (NPN)

- 1 = BASE
- 2 = EMITTER
- 3 = COLLECTOR



**LOW NOISE TRANSISTOR**

**ABSOLUTE MAXIMUM RATINGS (Ta=25 deg C)**

DESCRIPTION	SYMBOL	VALUE	UNIT
Collector -Base Voltage	VCBO	60	V
Collector -Emitter Voltage	VCEO	60	V
Emitter Base Voltage	VEBO	6	V
Collector Current -Continuous	IC	50	mA
Device Dissipation FR-5 Board*	PD	225	mW
Derate above 25 deg C		1.8	mW/deg C
Thermal Resistance Junction to Ambient	Rth (j-a)	556	deg C/W
Device Dissipation Alumina Substrate**	PD	300	mW
Derate above 25 deg C		2.4	mW/deg C
Thermal Resistance Junction to Ambient	Rth (j-a)	417	deg C/W
Junction and Storage Temperature Range	Tj,Tstg	-55 to +150	deg C

\*FR-5=1.0X0.75X0.062 in

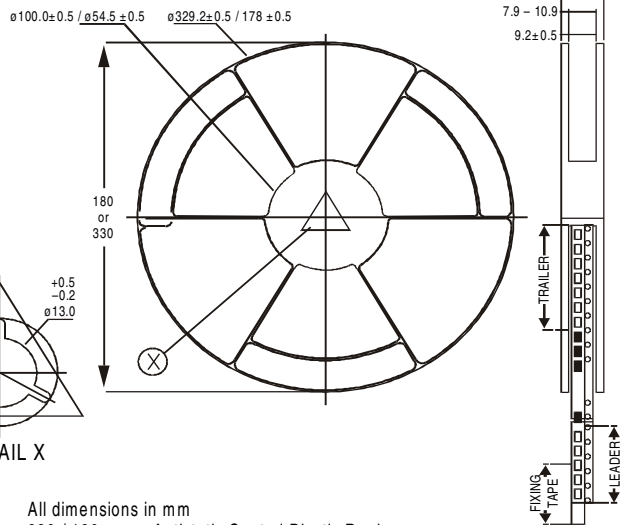
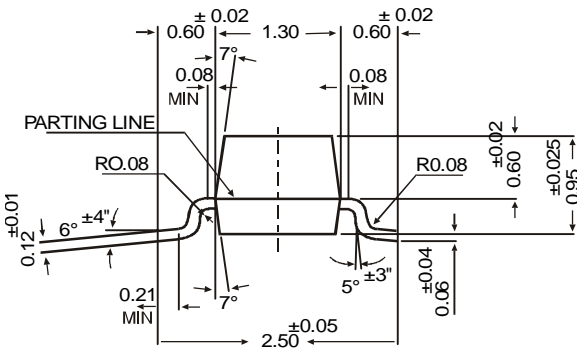
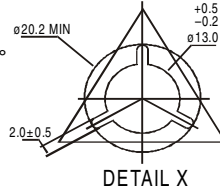
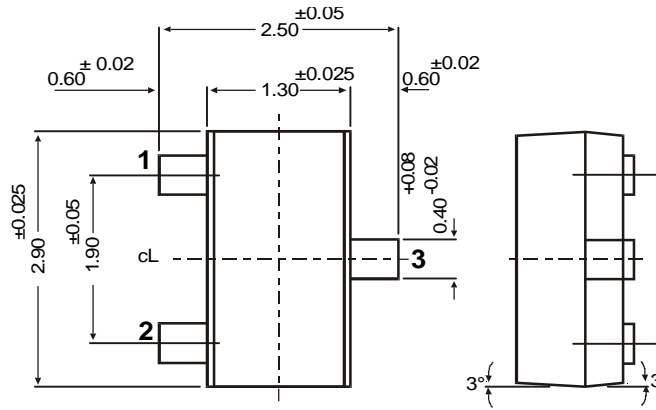
\*\*Alumine=0.4x0.3x0.024 in 99.5% alumina.

**ELECTRICAL CHARACTERISTICS (TA=25 deg C unless otherwise noted)**

CHARACTERISTICS	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Collector -Emitter Voltage	VCEO	IC=10mA, IB=0	60	-	-	V
Collector -Base Voltage	VCBO	IC=10uA, IE=0	60	-	-	V
Emitter Base Voltage	VEBO	IE=10uA, IC=0	6.0	-	-	V
Collector Cut off Current	ICBO	VCB=45V, IE=0	-	-	10	nA
		VCB=45V, IE=0 TA=150 deg C	-	-	10	uA
Emitter Cut off Current	IEBO	VEB=5V, IC=0	-	-	10	nA
DC Current Gain	hFE	IC=1mA, VCE=5V	250	-	-	
		IC=10mA, VCE=5V	-	-	800	
Collector Emitter Saturation Voltage	VCE(Sat)	IC=1mA, IB=0.1mA	-	-	0.35	V
Base Emitter On Voltage	VBE(on)	IC=1mA, VCE=5V	-	-	0.95	V
<b>SMALL SIGNAL CHARACTERISTICS</b>						
Output Capacitance	Cobo	VCB=5V, IE=0 f=1MHz	-	-	6.0	pF
Input Capacitance	Cibo	VBE=0.5V, IC=0 f=1MHz	-	-	9.0	pF
Noise Figure	NF	IC=10uA, VCE=5V RS=10 kohms f=1kHz, BW=200Hz	-	-	4.0	dB

### SOT-23 Formed SMD Package

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



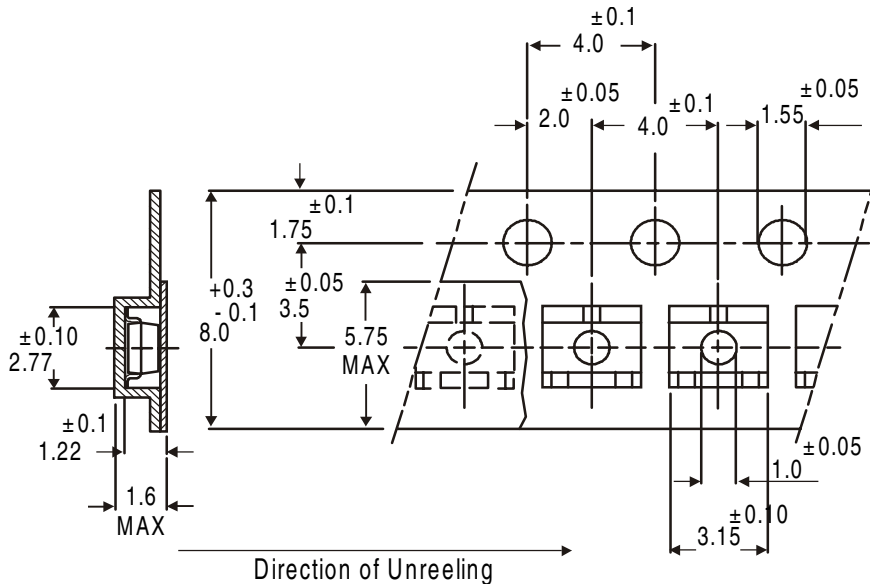
All dimensions in mm  
330 / 180 mm – Antistatic Coated Plastic Reel

**NOTES:**

	8mm Tape	8mm Tape
	Size of Reel	Size of Reel
	330 mm (13")	180 mm (7")
No. of Devices	10,000 Pcs	3,000 Pcs

- 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



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
SOT-23 T&R	3K/reel	136 gm/3K pcs	3" x 7.5" x 7.5"	12.0K	17" x 15" x 13.5"	192.0K	12 kgs
	10K/reel	415 gm/10K pcs	9" x 9" x 9"	51.0K	19" x 19" x 19"	408.0K	28 kgs
			13" x 13" x 0.5"	10.0K	17" x 15" x 13.5"	300.0K	16 kgs

### Disclaimer

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