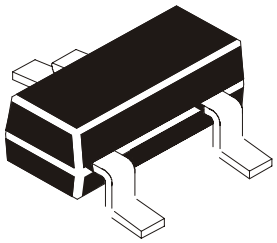
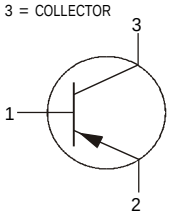
PNP EPITAXIAL PLANAR SILICON TRANSISTOR

CMMT591A
SOT-23



PIN CONFIGURATION (PNP)
1 = BASE
2 = EMITTER
3 = COLLECTOR



MARKING: 59A

Complementary CMMT491A

ABSOLUTE MAXIMUM RATINGS

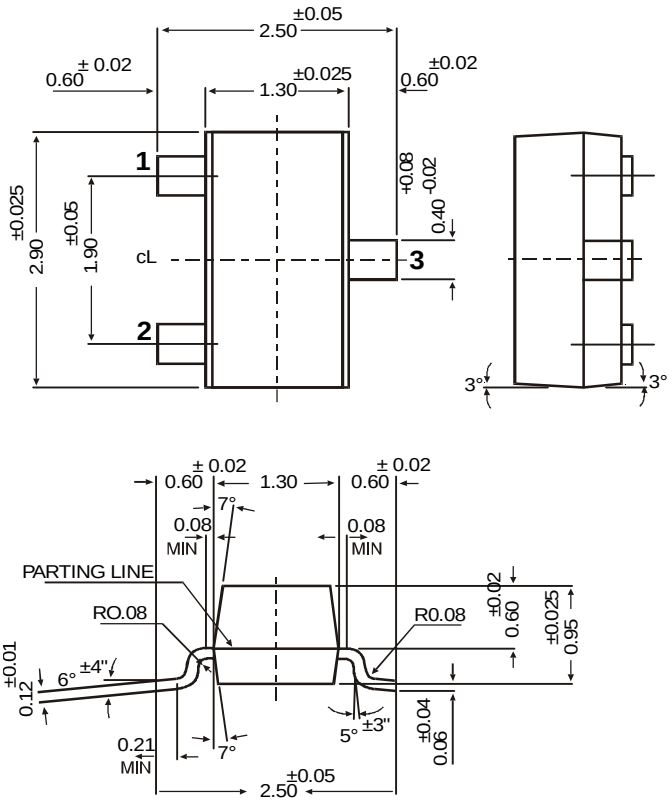
DESCRIPTION	SYMBOL	VALUE	UNIT
Collector -Base Voltage	VCBO	40	V
Collector -Emitter Voltage	VCEO	40	V
Emitter Base Voltage	VEBO	5.0	V
Peak Pulse Current	ICM	2.0	A
Collector Current Continuous	IC	1.0	A
Base Current	IB	200	mA
Power Dissipation @Tamb=25 deg C	Ptot	500	mW
Operating & Storage Temperature Range	Tj, Tstg	-55 to +150	deg C

ELECTRICAL CHARACTERISTICS (Ta=25 deg C)

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	MAX	UNIT
Collector -Base Voltage	VCBO	IC=100uA, IE=0	40	-	V
Collector -Emitter Voltage	VCEO	IC=10mA, IB=0	40	-	V
Emitter Base Voltage	VEBO	IE=100uA, IC=0	5.0	-	V
Collector Cut off Current	ICBO	VCB=30V, IE=0	-	100	nA
Emitter Cut off Current	IEBO	VEB=4V, IC=0	-	100	nA
Collector-Emitter Cut off Current	ICES	VCE=30V, VBE=0	-	100	nA
Collector Emitter Saturation Voltage	VCE(Sat)*	IC=100mA,IB=1mA	-	0.20	V
		IC=500mA,IB=20mA	-	0.35	V
		IC=1A, IB=100mA	-	0.50	V
Base Emitter Saturation Voltage	VBE(Sat)*	IC=1A, IB=50mA	-	1.1	V
Base Emitter on Voltage	VBE(on)*	IC=1A, VCE=5V	-	1.0	V
DC Current Gain	hFE	IC=1mA,VCE=5V	300	-	
		IC=100mA,VCE=5V*	300	800	
		IC=500mA,VCE=5V*	250	-	
		IC=1A, VCE=5V*	160	-	
		IC=2A, VCE=5V*	30	-	
Dynamic Characteristics					
Transition Frequency	ft	VCE=10V,IC=50mA, f=100MHz	150	-	MHz
Output Capacitance	Cobo	VCB=10V, IE=0 f=1MHz	-	10	pF

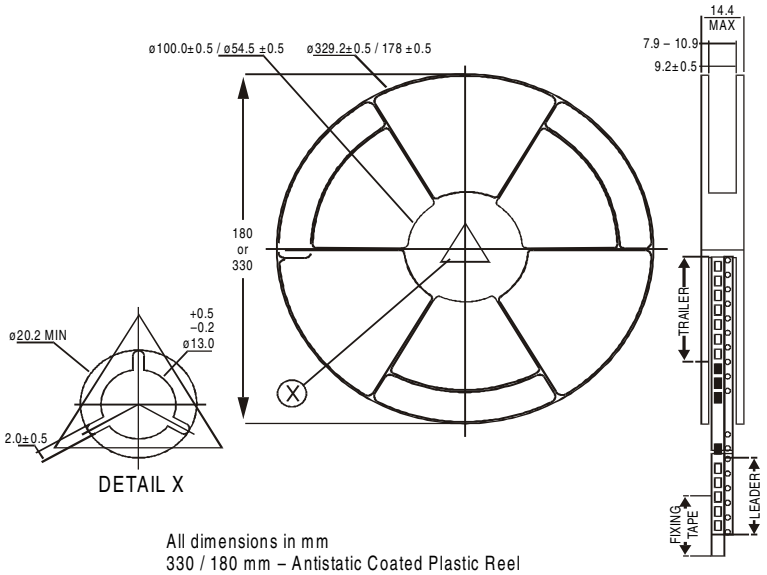
***Pulsed Conditions pulse width=300us, Duty Cycle=2%**

SOT-23 Formed SMD Package



SOT-23 Package Reel Information

Reel specifications for W" Packing (13" reel)

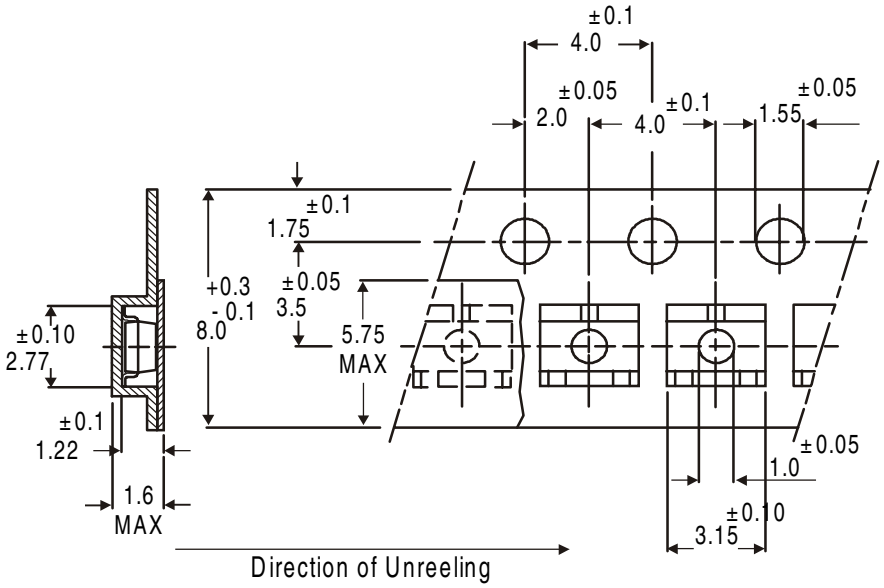


All dimensions in mm
330 / 180 mm – Antistatic Coated Plastic Reel

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

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.

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
			9" x 9" x 9"	51.0K	19" x 19" x 19"	408.0K	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

Customer 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).

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