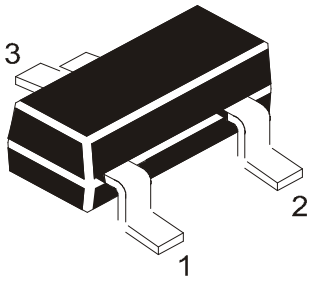
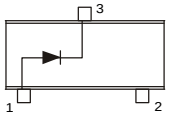
SILICON PLANAR SCHOTTKY DIODES

BAT54





Pin Configuration
1 = ANODE
2 = NC
3 = CATHODE

SOT-23
Formed SMD Package
For Lead Free Parts, Device Part # will be Prefixed with "T"

Marking
BAT54 =L4

Ultra High Speed Switching Diodes

ABSOLUTE MAXIMUM RATINGS

DESCRIPTION	SYMBOL	VALUE	UNIT
Repetitive Peak Reverse Voltage	V_{RRM}	30	V
Forward Current (DC)	I_F	200	mA
Repetitive Peak Forward Current	I_{FRM}	300	mA
Non Repetitive Peak Forward Current t<1s	I_{FSM}	600	mA
Power Dissipation T_a=25ºC	P_D	230	mW
Storage Temperature Range	T_{stg}	- 55 to +150	^oC
Junction Temperature	T_j	125	^oC

THERMAL RESISTANCE

Junction to Ambient in free air	$R_{th\ (j-a)}$	430	K/W

ELECTRICAL CHARACTERISTICS (T_a=25º C unless specified otherwise)

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	MAX	UNIT
Forward Voltage	V_F	I_F=0.1mA		0.24	V
		*I_F=1mA		0.32	V
		I_F=10mA		0.40	V
		*I_F=30mA		0.50	V
		I_F=100mA		1.00	V
Reverse Current	I_R	V_R=25V		2.0	µA
Reverse Breakdown Voltage	$V_{(BR)R}$	I_R=100µA	30		V

DYNAMIC CHARACTERISTICS

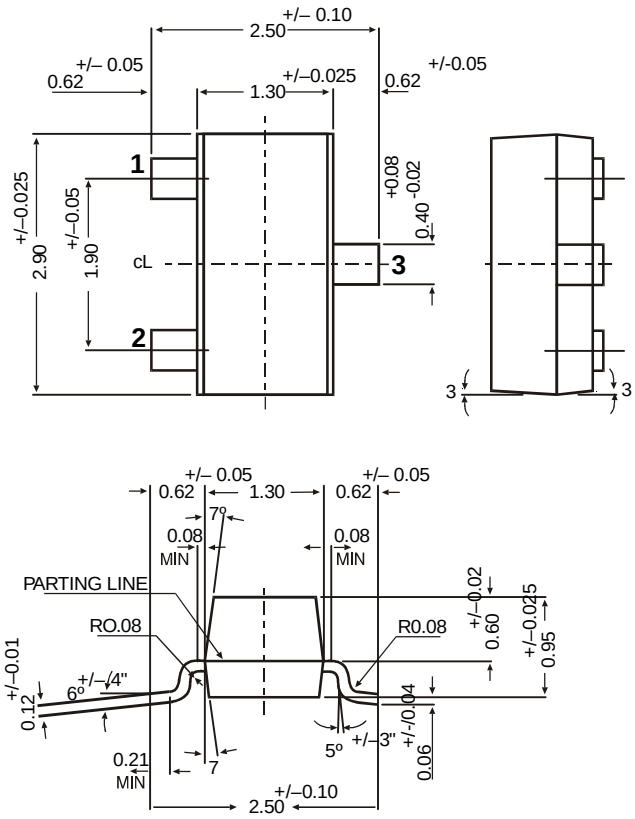
DESCRIPTION	SYMBOL	TEST CONDITION	MIN	MAX	UNIT
Diode Capacitance	C_d	V_R=1V, f=1MHz		15	pF
Reverse Recovery Time When Switched From	t_{rr}	I_F=10mA to I_R=10mA, measured at I_R=1mA, R_L=100Ω		5	ns

***Temperature coefficient of forward voltage**
- 0.6 %K at I_F=1mA
- 0.3 %K at I_F=30mA

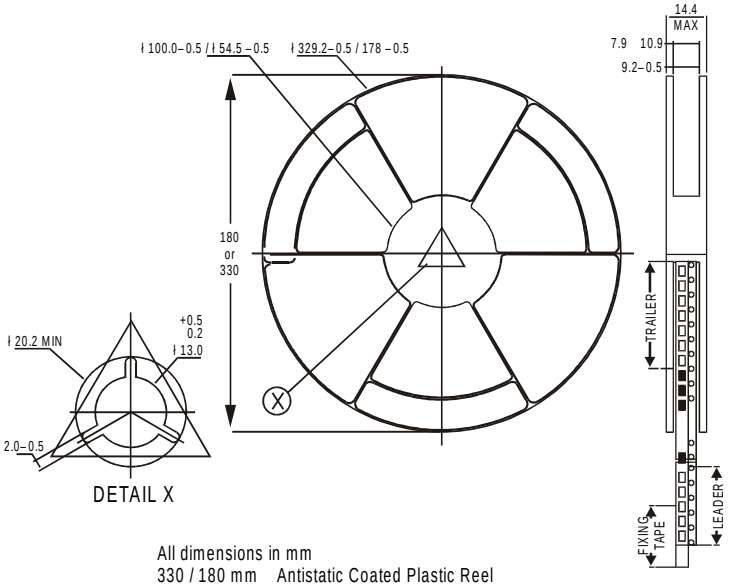
BAT54

SOT-23
Formed SMD Package
For Lead Free Parts, Device Part # will be Prefixed with "T"

SOT-23 Formed SMD Package



SOT-23 Package Reel Information
Reel specifications for Packing (13"/7" reels)

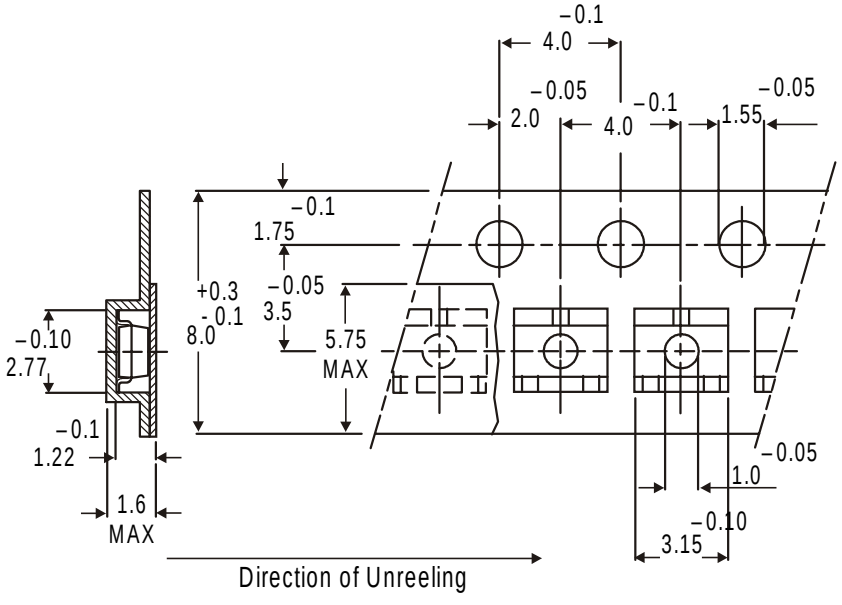


All dimensions in mm
330 / 180 mm Antistatic Coated Plastic Reel

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

Component Disposal Instructions

1. CDIL Semiconductor Devices are RoHS compliant, customers are requested to please dispose as per prevailing Environmental Legislation of their Country.
2. In Europe, please dispose as per EU Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE).

Disclaimer

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