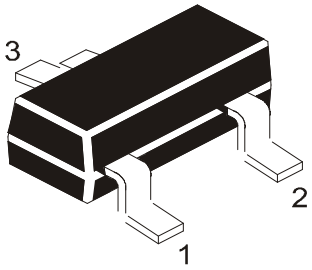
Continental Device India Limited

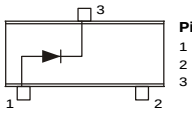
An ISO/TS 16949, ISO 9001 and ISO 14001 Certified Company

SILICON HIGH CURRENT SCHOTTKY BARRIER DIODE

SDC1000

SOT-23
Formed SMD Package





Pin Configuration
1 = ANODE
2 = NC
3 = CATHODE

Marking
SDC1000=ZS1

Mobile Telecomms, PCMIA & SCSI and DC-DC Conversion Applications

ABSOLUTE MAXIMUM RATINGS

DESCRIPTION	SYMBOL	VALUE	UNIT
Continuous Reverse Voltage	V_R	40	V
Forward Current (DC)	I_F	1.0	A
Forward Voltage at I_F=1A	V_F	640	mV
Average Peak Forward Current; DC=50%	I_{FAV}	1750	mA
Non Repetitive Forward Current t≤100ms	I_{FSM}	12	A
t≤10ms		5.2	A
Power Dissipation at T_{amb}=25ºC	P_D	500	mW
Storage Temperature Range	T_{stg}	- 55 to +150	ºC
Junction Temperature	T_j	125	ºC

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

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	MAX	UNIT
Reverse Breakdown Voltage	$V_{(BR)R}$	I_R=300µA	40		V
Forward Voltage	*V_F	I_F=50mA		320	mV
		I_F=100mA		350	mV
		I_F=250mA		420	mV
		I_F=500mA		490	mV
		I_F=750mA		560	mV
		I_F=1.0A		640	mV
		I_F=1.5A		760	mV
Reverse Current	I_R	V_R=30V		100	µA

DYNAMIC CHARACTERISTICS

DESCRIPTION	SYMBOL	TEST CONDITION	TYP	UNIT
Diode Capacitance	C_d	V_R=25V, f=1MHz	25	pF
Reverse Recovery when Switched From	t_{rr}	I_F=500mA to I_R=500mA, measured at I_R=50mA	12	ns

***Measured under pulsed conditions. Pulse width = 300ms. Duty cycle ≤2%**

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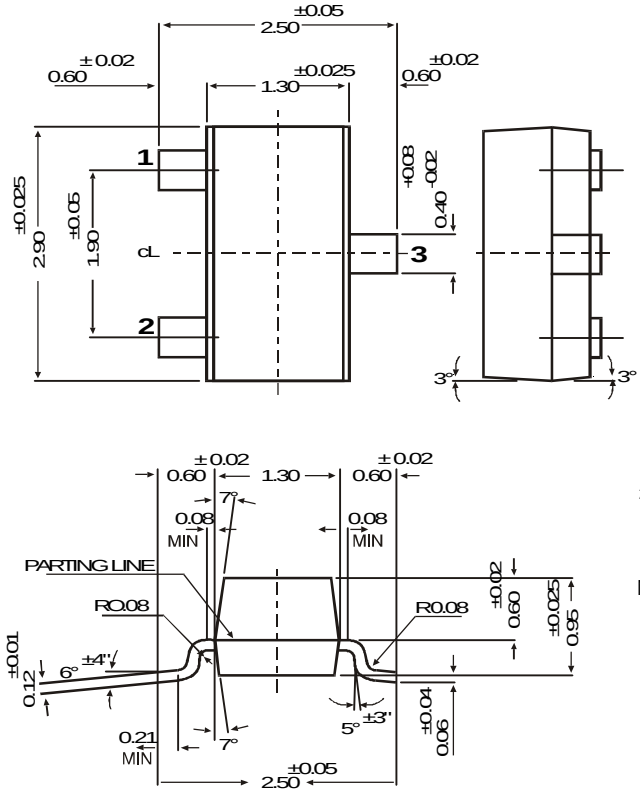
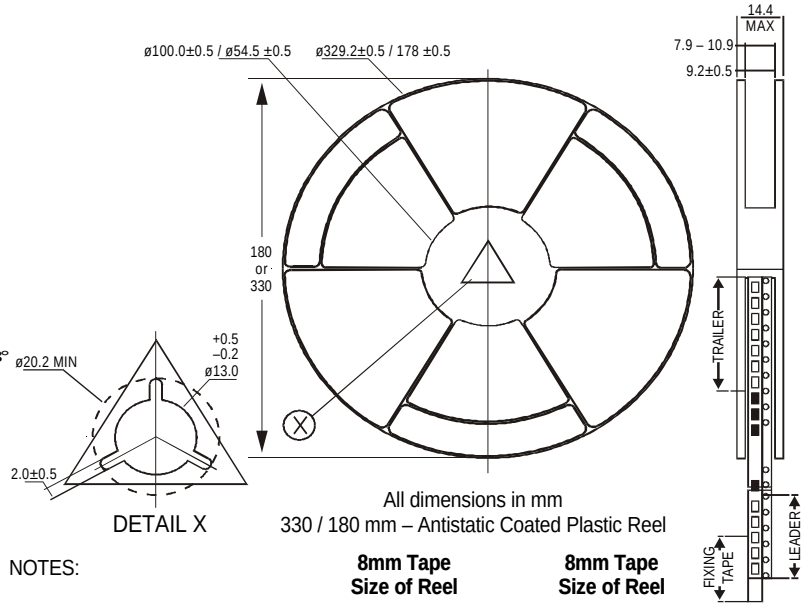


SOT-23 Package Reel Information

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



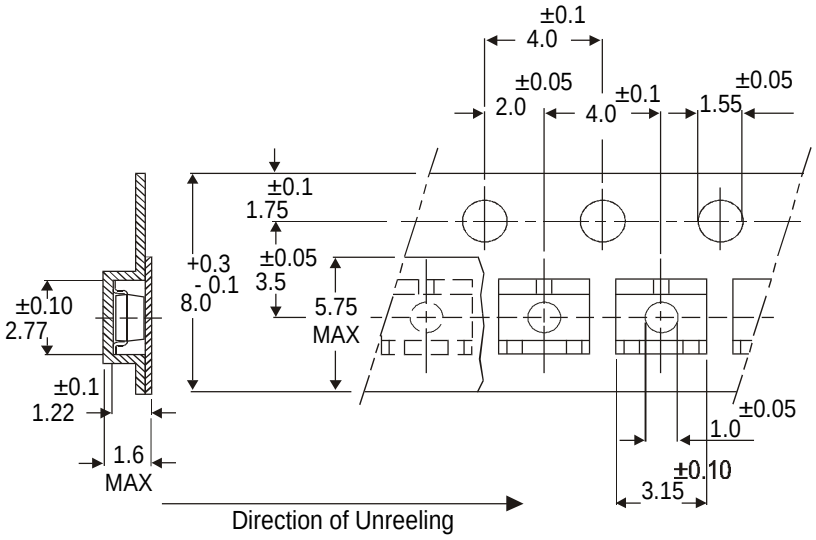
All dimensions in mm
330 / 180 mm – Antistatic Coated Plastic Reel

NOTES:

	8mm Tape Size of Reel	8mm Tape Size of Reel
	330 mm (13")	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 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**

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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

The product information and the selection guides facilitate selection of the CDIL's 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 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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Continental Device India Limited
C-120 Naraina Industrial Area, New Delhi 110 028, India.
Telephone + 91-11-2579 6150, 4141 1112 Fax + 91-11-2579 5290, 4141 1119
email@cdil.com www.cdilsemi.com