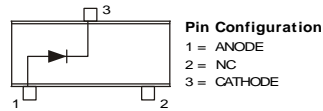
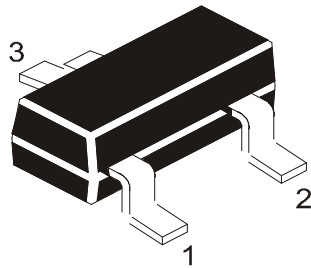


SILICON HIGH CURRENT SCHOTTKY BARRIER DIODE

SDC1000



SOT-23
Formed SMD Package

Marking
SDC1000=ZS1

Mobile Telecomms, PCMCIA & 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 $t \leq 100\mu s$ $t \leq 10ms$	I_{FSM}	12	A
		5.2	A
Power Dissipation at $T_{amb}=25^\circ C$	P_D	500	mW
Storage Temperature Range	T_{stg}	- 55 to +150	$^\circ C$
Junction Temperature	T_j	125	$^\circ C$

ELECTRICAL CHARACTERISTICS ($T_a=25^\circ C$ unless specified otherwise)

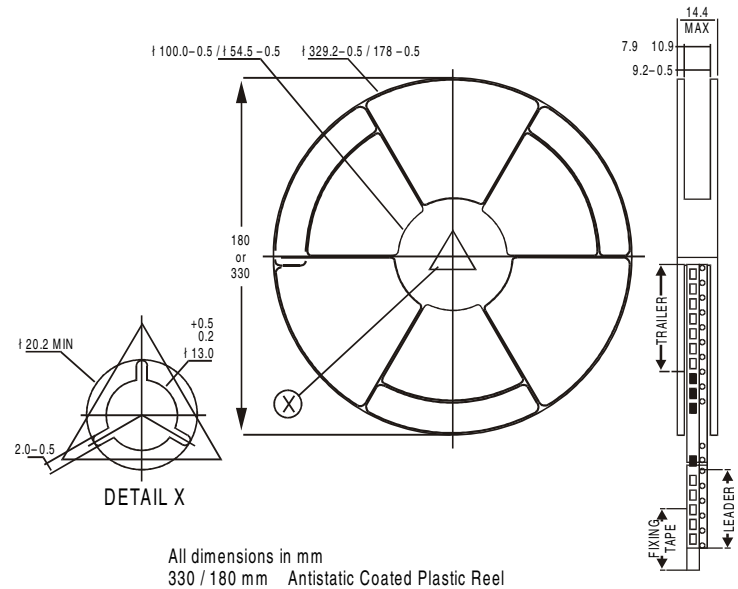
DESCRIPTION	SYMBOL	TEST CONDITION	MIN	MAX	UNIT
Reverse Breakdown Voltage	$V_{(BR)R}$	$I_R=300\mu A$	40		V
Forward Voltage	$*V_F$	$I_F=50mA$		320	mV
		$I_F=100mA$		350	mV
		$I_F=250mA$		420	mV
		$I_F=500mA$		490	mV
		$I_F=750mA$		560	mV
		$I_F=1.0A$		640	mV
		$I_F=1.5A$		760	mV
Reverse Current	I_R	$V_R=30V$		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 = 300 μs . Duty cycle $\leq 2\%$

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



- | NOTES: | | 8mm Tape | 8mm Tape |
|----------------|--|--------------|--------------|
| | | Size of Reel | Size of Reel |
| No. of Devices | | 330 mm (13") | 180 mm (7") |
| | | 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. | | |

Technical drawing of a roller assembly, showing a cross-section and a plan view.

Cross-section (Left):

- Overall width: 2.77
- Central hole diameter: 0.10
- Housing thickness: 0.1
- Roller diameter: 1.75
- Distance from roller center to housing edge: 1.22
- Maximum housing width: 1.6 MAX

Plan View (Right):

- Overall length: 8.0
- Roller diameter: 1.75
- Center-to-center distance between rollers: 4.0
- Distance from roller center to housing edge: 1.22
- Maximum housing width: 1.6 MAX
- Direction of Unreeling: Indicated by an arrow pointing right.

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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

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 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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