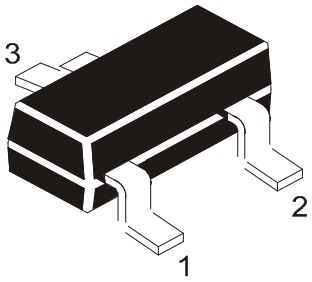
Continental Device India Limited

An ISO/TS16949 and ISO 9001 Certified Company

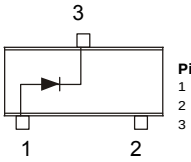
SILICON PLANAR SCHOTTKY DIODES

BAR43, BAR43A
BAR43C, BAR43S

SOT-23
Formed SMD Package

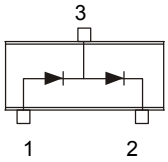


BAR43



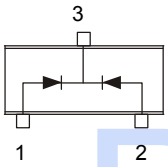
Pin Configuration
1 = ANODE
2 = NC
3 = CATHODE

BAR43S



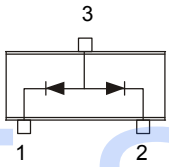
Pin Configuration
1 = ANODE
2 = CATHODE
3 = ANODE/ CATHODE

BAR43C



Pin Configuration
1 = ANODE
2 = ANODE
3 = CATHODE

BAR43A



Pin Configuration
1 = CATHODE
2 = CATHODE
3 = ANODE

BAR43= D95

BAR43A=DB1

BAR43C=DB2

BAR43S=DA5

General Purpose, metal to Silicon Diodes Featuring Very Low Turn-on Voltage and Fast Switching

ABSOLUTE MAXIMUM RATINGS (see note 1)

DESCRIPTION	SYMBOL	VALUE	UNIT
Repetitive Peak Reverse Voltage	V_{RRM}	30	V
Forward Current	I_F	100	mA
Repetitive Peak Forward Current	I_{FRM}	350	mA
Surge Non Repetitive Forward Current	I_{FSM}	750	mA
Power Dissipation T_a=25ºC (see note 2)	*P_D	160	mW
Storage Temperature Range	T_{stg}	- 55 to +150	ºC
Junction Temperature	T_j	125	ºC

THERMAL RESISTANCE (see note 3)

Junction to Ambient in free air	*$R_{th\ (j-a)}$	625	ºC/W
Junction to Substrate	$R_{th\ (j-SR)}$	400	ºC/W

***Mounted on a ceramic substrate: 7 x 5 x 0.5mm**

Note:- 1 For double diodes maximum ratings apply to each diode, provided that rated P_D is not exceeded
2 For double diodes P_D is the total power dissipation of the two diodes
3 For double diodes R_{th} refer to the total power dissipation in the two diodes and is given independently of the power distribution in the two diodes

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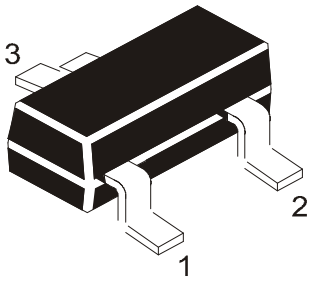


SOT-23
Formed SMD Package

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

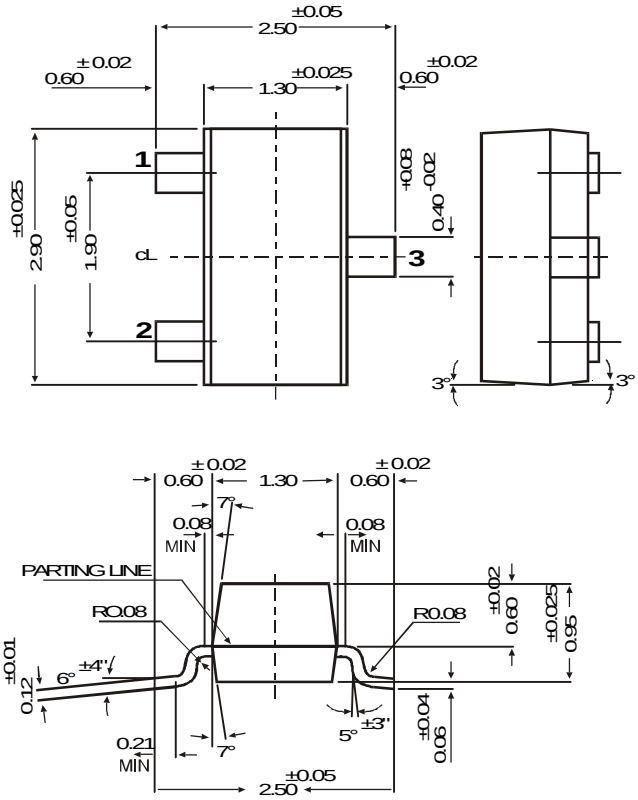
DESCRIPTION	SYMBOL	TEST CONDITION	MIN	MAX	UNIT
Reverse Breakdown Voltage	$V_{(BR)}$	I_R=100µA	30		V
Forward Voltage	V_F	I_F=2mA	0.26	0.33	V
		I_F=15mA		0.45	V
		I_F=100mA		1.00	V
Reverse Current	I_R	V_R=25V		500	nA
		V_R=25V, T_a=100ºC		100	µA

DYNAMIC CHARACTERISTICS

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	MAX	UNIT
Diode Capacitance	C	V_R=1V, f=1MHz	TYP 7		pF
Reverse Recovery Time When Switched From	t_{rr}	I_F=10mA, to I_R=10mA , I_{RR}=1mA, R_L=100Ω		5	ns

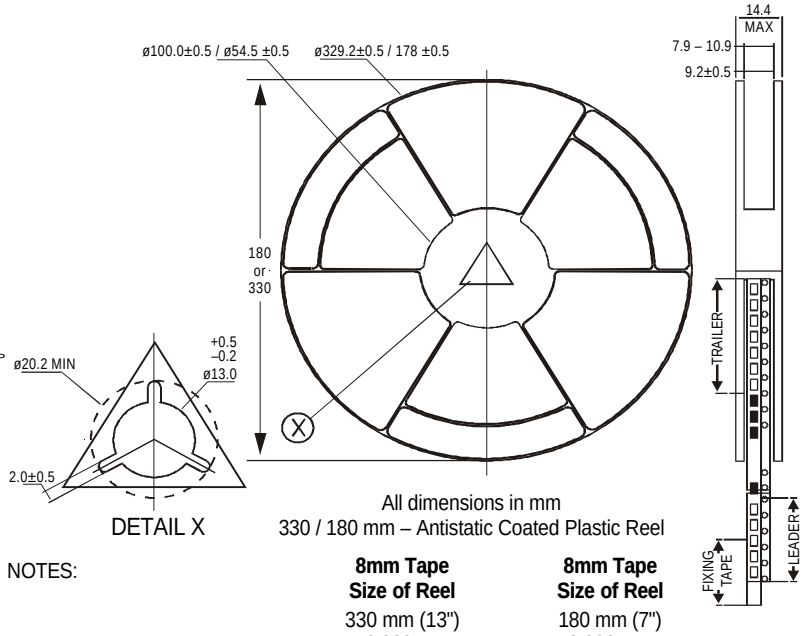
BAR43_A_C_S Rev300403E

SOT-23 Formed SMD Package



SOT-23 Package Reel Information

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



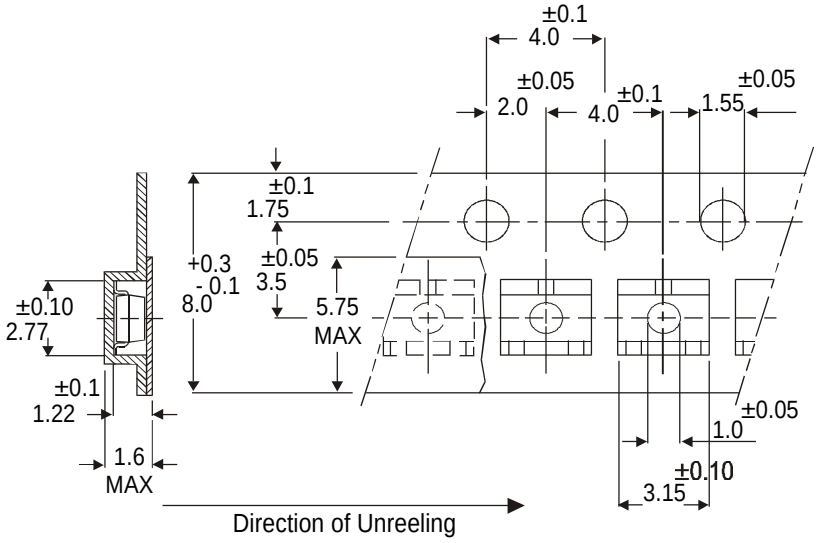
All dimensions in mm
330 / 180 mm – Antistatic Coated Plastic Reel

NOTES:

No. of Devices	8mm Tape Size of Reel 330 mm (13")	8mm Tape Size of Reel 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.

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**

BAR43_A_C_S Rev300403E

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).

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