

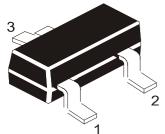
### Continental Device India Limited

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



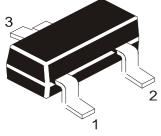


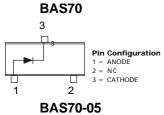
### SURFACE MOUNT SCHOTTKY DIODES

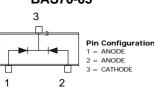


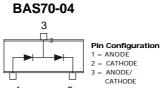
BAS70, **BAS70-04** BAS70-05, BAS70-06

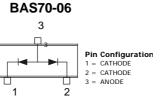
**SOT-23** Formed SMD Package











Marking

**BAS70** =

BAS70-04 = 74

BAS70-05 = 75

BAS70-06 = 76

**Ultra High Speed Switching Diodes** 

### ABSOLUTE MAXIMUM RATINGS (per diode)

DESCRIPTION	SYMBOL	VALUE	UNIT
Continuous Reverse Voltage	$V_R$	70	V
Continuous Forward Current	l <sub>F</sub>	70	mA
Repetitive Peak Voltage t <sub>P</sub> ≤ 1s; d ≤ 0.5	I <sub>FRM</sub>	70	mA
Non Repetitive Peak Forward Current	l-a	100	mA
tp=10ms	I <sub>FSM</sub>	100	IIIA
Storage Temperature	T <sub>stg</sub>	- 65 to +150	°C
Junction Temperature	T <sub>j</sub>	150	°C
Storage Temperature Range	T <sub>amb</sub>	- 65 to +150	°C

### THERMAL RESISTANCE

11121111111112						
Junction to Ambient in free air	R <sub>th (i-a)</sub>	500	K/W			

## ELECTRICAL CHARACTERISTICS (T<sub>a</sub>=25° C unless specified otherwise) Per diode

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	MAX	UNIT
Forward Voltage	$V_{F}$	I <sub>F</sub> =1mA		0.41	V
		I <sub>F</sub> =10mA		0.75	V
		I <sub>F</sub> =15mA		1.00	V
Reverse Current	*I <sub>R</sub>	V <sub>R</sub> =70V		10	μΑ
		$V_R=50V$		0.1	μA
Diode Capacitance	$C_d$	$V_R=0V$ , $f=1MHz$		2.0	pF

Pulse Test:  $t_p=300$ ms; d=0.02

BAS70\_06Rev\_1 300606E

# **SOT-23** Formed SMD Package

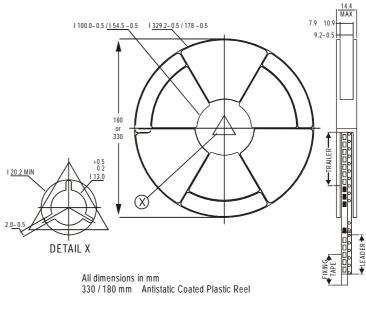
## **SOT-23 Formed SMD Package**

# 2.50 +/- 0.10 +/- 0.05 0.62 1.30+/-0.025 +/-0.05 0.62 +/-0.025 1.90 cL 3 - 0.05 - 1.30 +/- 0.05 0.62 I← 0.62 0.08 0.08 MIN MIN PARTING LINE RO.08 0.06

2.50 +/-0.10

0.21

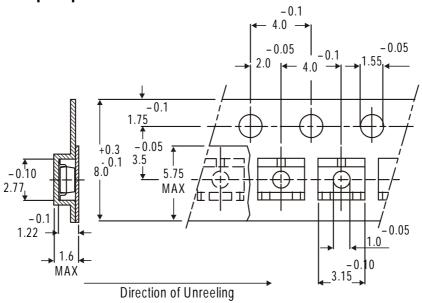
# **SOT-23 Package Reel Information** Reel specifications for Packing (13"/7" reels)



NOTES: 8mm Tape 8mm Tape Size of Reel Size of Reel 330 mm (13") 180 mm (7") No. of Devices 10.000 Pcs 3.000 Pcs

- The bandolier of 330 mm reel contains at least 10,000 devices.
- The bandolier of 180 mm reel contains at least 3,000 devices.
- No more than 0.5% missing devices / reel. 50 empty compartments for 330 mm reel. 15 empty compartments for 180 mm reel.
- Three consecutive empty places might be found provided this gap is followed by 6 consecutive devices.
- 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**

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).

CDIL strives for continuous improvement and reserves the right to change the specifications of its products without prior notice.



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