

# Continental Device India Limited

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





# **SOT-23 Formed SMD Package**

# **CMBD914**

# HIGH SPEED SWITCHING DIODE

# Marking

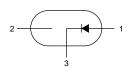
CMBD914 = 5D

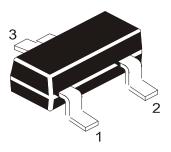
#### Pin configuration

1 = ANODE

2 = NC

3 = CATHODE





# ABSOLUTE MAXIMUM RATINGS

Continuous reverse voltage	$V_R$	75	V
Forward current	$I_F$	200	mA
Peak forward surge current	$I_{FM(surge)}$	<i>500</i>	mA

# **RATINGS** (at $T_A = 25$ °C, unless otherwise specified)

Total Power Dissipation, $T_A = 25$ °C	$P_{d}^{*}$	225	mW
Storage Temperature	$T_{Stg}$ -5	5 to +150	$^{\circ}$ $C$

#### THERMAL RESISTANCE

From junction to ambient Rth j-a 556 °C/W

#### **CHARACTERISTICS** (at TA = 25 °C, unless otherwise specified)

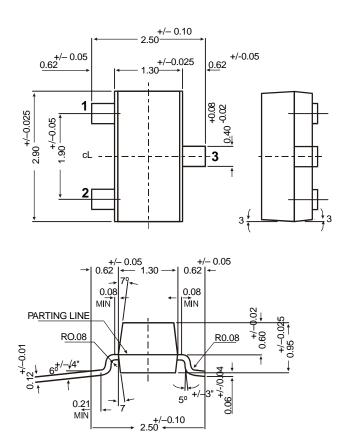
Reverse breakdown voltage

$I_R = 100 \mu A$	$V_{BR}$	min.	100 l	V
Reverse voltage leakage current				
$V_R = 20 V$	$I_R$	max.	25 i	ıA
$V_R = 75 V$	$I_R$	max.	5 µ	$\iota A$

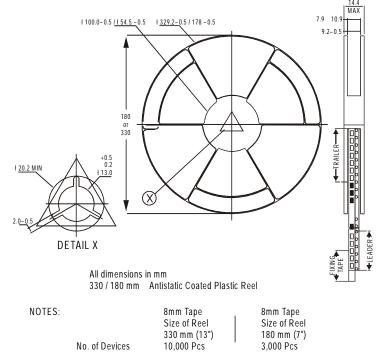
<sup>\*</sup> FR-5 Board =  $1.0 \times 0.75 \times 0.62$  in.

Diode capacitance				
$V_R = 0$ ; $f = 1 MHz$	$C_D$	max.	4	рF
Forward voltage				
$I_F = 10 \text{ mA}$	$V_F$	max.	1	V
Reverse recovery time				
$I_F = I_R = 10 \text{ mA}$	$t_{rr}$	max.	4	nsec.

# **SOT-23 Formed SMD Package**

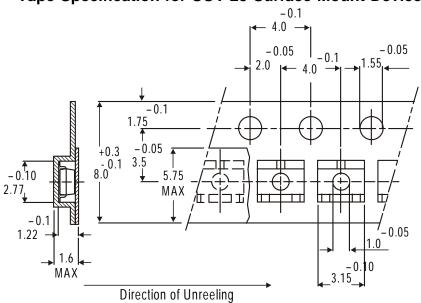


# SOT-23 Package Reel Information Reel specifications for Packing (13"/7" reels)



- 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.
- No more than 0.5% missing devices / reel. 50 empty compartments for 330 mm reel.
  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**



PACKAGE	STANDA	STANDARD PACK INNER CAP		N BOX	OUTER C	ARTON 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" 9" x 9" x 9"		17" x 15" x 13.5" 19" x 19" x 19"	192.0K 408.0K	12 kgs 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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CDIL is a registered Trademark of 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

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