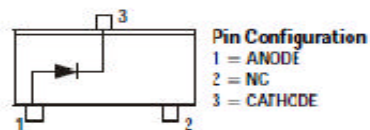
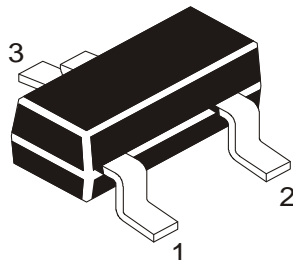


SURFACE MOUNT SILICON PLANAR ZENER DIODE

CZW39

SOT-23

Formed SMD Package



ABSOLUTE MAXIMUM RATINGS (per diode) ($T_a=25^\circ\text{C}$ unless specified otherwise)

DESCRIPTION	SYMBOL	VALUE	UNIT
Working Voltage	V_Z	39	V
Working Voltage Tolerance		+/- 5	%
Power Dissipation	P_{tot}	600	mW
Operating Junction and Storage Temperature Range	T_j, T_{stg}	- 55 to +150	$^\circ\text{C}$

Thermal Resistance

Junction to Ambient #	$R_{th(j-a)}$	430	K/W
Junction to Ambient ##	$R_{th(j-a)}$	500	K/W

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

$V_F < 1.5\text{V}$ at 200mA

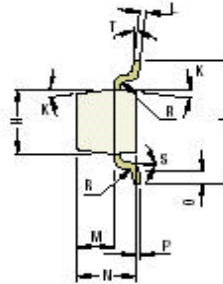
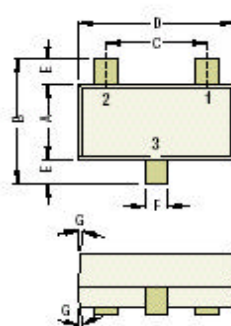
Types	Working Voltage		Differential Resistance r_{diff} (W)	Reverse Current		Temp Coeff of Zener Voltage	Differential Resistance r_{diff} (W) at I_{ZK}		MARKING
	V_Z (V)	(mA)		I_R	V_R		r_{diff} (W)	(mA)	
	(min) (max)	(I_{ZT})	(max)	mA	(V)	(TYP)	(max)	(I_{ZK})	
CZW39	37.0 - 41.0	6.5	60	5.0	29.7	0.09	1000	0.25	39

#Device mounted on a ceram alumna. ## Device mounted on an FR5 printed circuit board.

\$Pulse test 20ms \Rightarrow tp=50ms

SOT-23 PACKAGE DRAWING AND DIMENSION

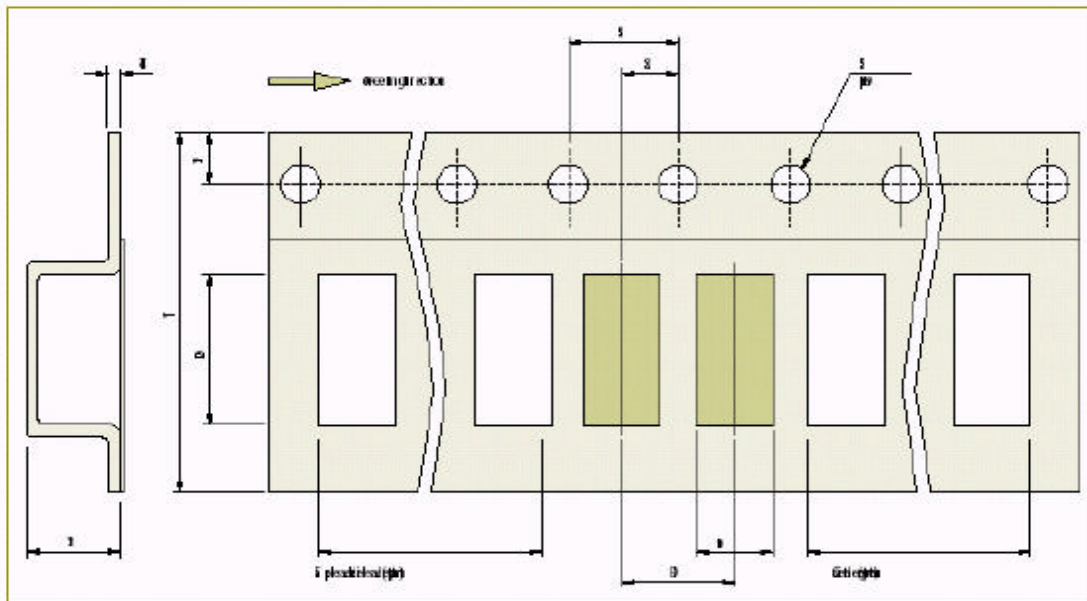
SOT-23 SMD Plastic Package



DIM	Min	Max
A	1.20	1.40
B	2.10	2.64
C	1.85	1.95
D	2.80	3.04
E	0.54	0.67
F	0.30	0.50
G	3°	
H	—	1.30
J	2.10	2.64

DIM	Min	Max
K	7°	
L	0.08	0.20
M	0.58	0.62
N	0.70	1.02
O	0.21	—
P	0.02	0.15
R	—	0.08
S	2°	8°
T	2°	10°

Packaging Tape Specifications for SMD Packages



SMD Tape Specifications (8-12 mm)

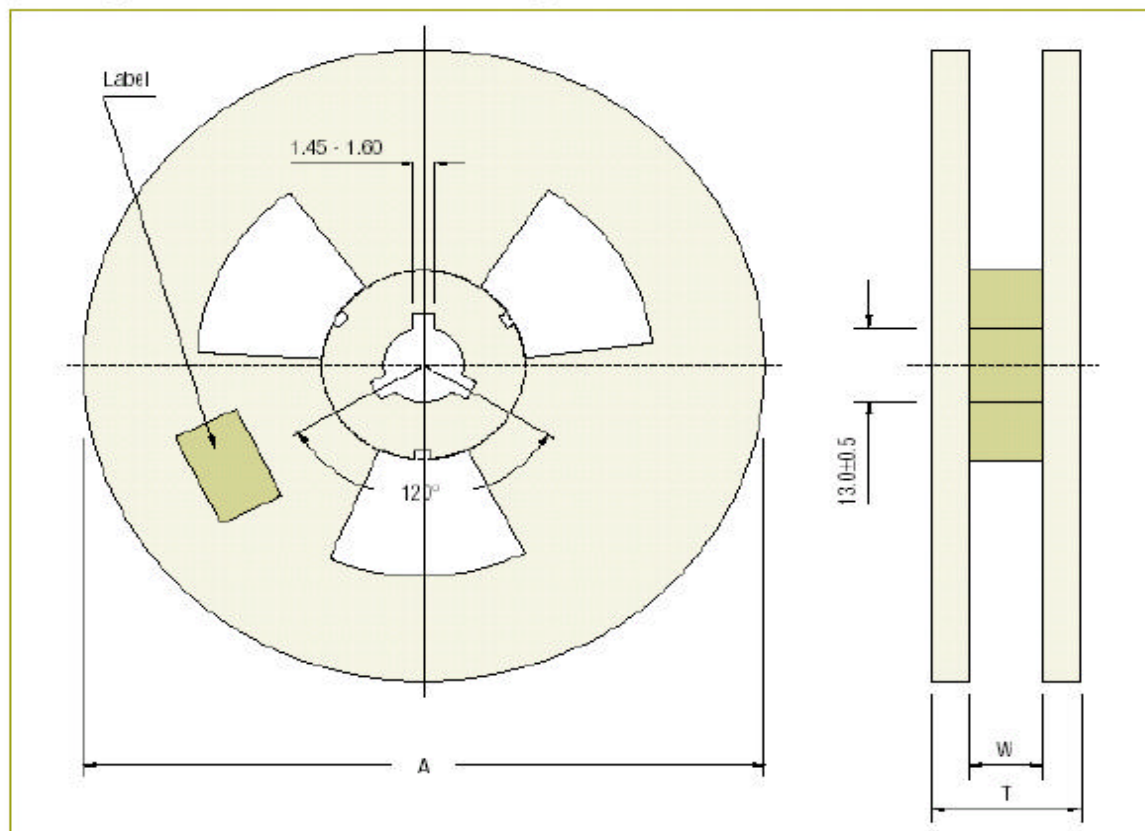
Device	D1	D2	D3	T1	T2	T3	T4	S1	S2	S3
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
SOT-23	3.2±0.1	2.8±0.1	4.0±0.1	1.0±0.2	1.75±0.1	1.90	0.35	4.0±0.1	2.0±0.1	1.5±0.1

Packaging Specifications ...

T & A: Tape and Ammo Pack; T & R: Tape and Reel; Bulk: Loose in Poly Bags; Tube: Tube and Carton; K: 1,000

Package / Case Type	Packaging Type	Std. Packing Qty	Inner Carton			Outer Carton		
			Qty	Size L x W x H (cm)	Gross Weight (Kg)	Qty	Size L x W x H (cm)	Gross Weight (Kg)
SOT-23	T & R	3,000	15K	19 x 19 x 8	0.6	51K	23 x 13 x 23	2.2
	T & R	3,000	15K	19 x 19 x 8	0.6	408K	48 x 48 x 51	20.2
	T & R	10,000	50K	35.5 x 35.5 x 8.9	2.4	350K	48 x 48 x 51	19.2

Reel Specifications for SMD Packages



Reel Specifications

Package	Type	Reel Dia.	Devices per Reel	Inside Thickness	Reel Thickness
	Width	Δ - Max	and MOQ	W	T - Max
SOT-23	1	180	3,000	8.4±2	14.4
	1	330	10,000	8.4±2	14.4



Continental Device India Limited

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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 in the Data Sheet and 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.cdil.com
CIN No. - U32109DL1964PLC004291