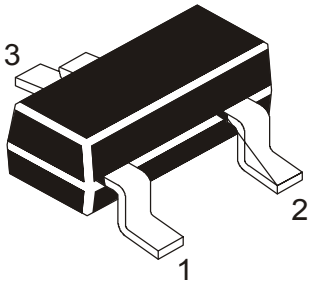
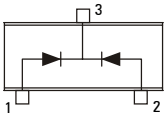
SILIICON PLANAR ZENER DIODES

CZMK3V3-39V

SOT-23
Formed SMD Package





Pin Configuration
1 = ANODE
2 = ANODE
3 = CATHODE

Dual Zener Diodes, Common Cathode

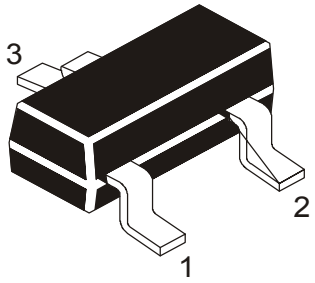
ABSOLUTE MAXIMUM RATINGS Per Diode (T_a=25°C Unless Specified Otherwise)

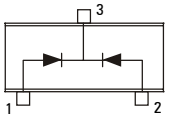
DESCRIPTION	SYMBOL	VALUE	UNIT
Working Voltage Range	V_Z	3V3 to 39	V
Working Voltage Tolerance		+/-5	%
Repetitive Peak Forward Current	I_{FRM}	250	mA
Repetitive Peak Working Current	I_{ZRM}	250	mA
Power Dissipation upto T_{amb}=25ºC	P_{tot} *	300	mW
Power Dissipation upto T_{amb}=25ºC	P_{tot} **	250	mW
Storage Temperature	T_j	150	°C
Junction Temperature	T_{stg}	- 55 to +150	°C
Thermal Resistance			
From Junction to Ambient	$R_{th\ (j-a)}$	430	K/W
From Junction to Ambient	$R_{th\ (j-a)}$	500	K/W

*** Device mounted on a ceramic alumna**
**** Device mounted on an FR5 printed circuit board**

ELECTRICAL CHARACTERISTICS Per Diode (T_a=25°C V_F <0.9V max, I_F=10mA)

Device #	Working Voltage V_Z(V)*** @ $I_Z$test=5mA		Differential Resistance rdiff (Ω) @ $I_Z$test=5mA		Reverse Current I_R		Temperature Coefficient S_Z (mV/K) @ $I_Z$test=5mA			Differential Resistance rdiff (Ω) @ $I_Z$test=1mA		Marking
	min	max	typ	max	µA	V	min	typ	max	typ	max	
CZMK 3.3	3.10	3.50	85	95	5.0	1	-3.5	-2.4	0	350	600	ZF
CZMK 3.6	3.40	3.80	85	90	5.0	1	-3.5	-2.4	0	375	600	ZG
CZMK 3.9	3.70	4.10	85	90	3.0	1	-3.5	-2.5	0	400	600	ZH
CZMK 4.3	4.00	4.60	80	90	3.0	1	-3.5	-2.5	0	410	600	ZJ
CZMK 4.7	4.40	5.00	50	80	3.0	2	-3.5	-1.4	0.2	425	500	ZK
CZMK 5.1	4.80	5.40	40	60	2.0	2	-2.7	-0.8	1.2	400	480	ZL
CZMK 5.6	5.20	6.00	15	40	1.0	2	-2.0	-1.2	2.5	80	400	ZM
CZMK 6.2	5.80	6.60	6	10	3.0	4	0.4	2.3	3.7	40	150	ZN
CZMK 6.8	6.40	7.20	6	15	2.0	4	1.2	3.0	4.5	30	80	ZP
CZMK 7.5	7.00	7.90	6	15	1.0	5	2.5	4.0	5.3	30	80	ZT
CZMK 8.2	7.70	8.70	6	15	0.7	5	3.2	4.6	6.2	40	80	ZV
CZMK 9.1	8.50	9.60	6	15	0.5	6	3.8	5.5	7.0	40	100	ZW
CZMK 10	9.40	10.60	8	20	0.2	7	4.5	6.4	8.0	50	150	ZX





Pin Configuration
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2 = ANODE
3 = CATHODE

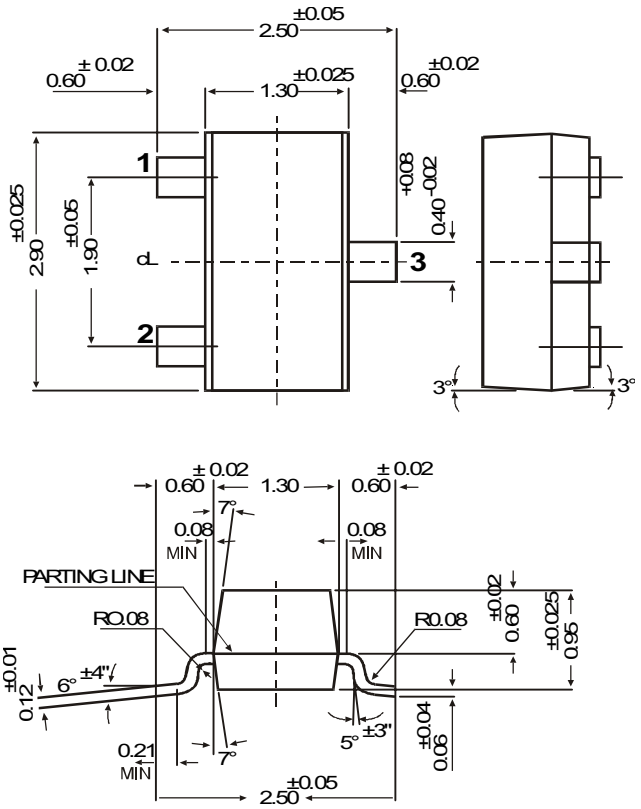
SOT-23
Formed SMD Package

ELECTRICAL CHARACTERISTICS Per Diode (T_a=25°C V_F <0.9V max, I_F=10mA)

Device #	Working Voltage		Differential Resistance		Reverse Current		Temperature Coefficient			Differential Resistance		Marking
	V_Z(V)*** @ $I_Z$test=5mA		rdiff (Ω) @ $I_Z$test=5mA		I_R		S_Z (mV/K) @ $I_Z$test=5mA			rdiff (Ω) @ $I_Z$test=1mA		
	min	max	typ	max	µA	V	min	typ	max	typ	max	
CZMK 11	10.40	11.60	10	20	0.1	8.0	5.4	7.4	9.0	50	150	ZY
CZMK 12	11.40	12.70	10	25	0.1	8.0	6.0	8.4	10	50	150	ZZ
CZMK 13	12.40	14.10	10	30	0.1	8.0	7.0	9.4	11	50	170	YB
CZMK 15	13.80	15.60	10	30	0.05	10.5	9.2	11.4	13	50	200	YC
CZMK 16	15.30	17.10	10	40	0.05	11.2	10.4	12.4	14	50	200	YD
CZMK 18	16.80	19.10	10	45	0.05	12.6	12.4	14.4	16	50	225	YE
CZMK 20	18.80	21.20	15	55	0.05	14.0	14.4	16.4	18	60	225	YF
CZMK 22	20.80	23.30	20	55	0.05	15.4	16.4	18.4	20	60	250	YG
CZMK 24	22.80	25.60	25	70	0.05	16.8	18.4	20.4	22	60	250	YH
	@ $I_Z$test=2mA		@ $I_Z$test=2mA				@ $I_Z$test=2mA			@ $I_Z$test=0.5mA		
CZMK 27	25.10	28.90	25	80	0.05	18.9	21.4	23.4	25.3	65	300	YJ
CZMK 30	28.00	32.00	30	80	0.05	21.0	24.4	26.6	29.4	70	300	YK
CZMK 33	31.00	35.00	35	80	0.05	23.1	27.4	29.7	33.4	75	325	YL
CZMK 36	34.00	38.00	35	90	0.05	25.2	30.4	33.0	37.4	80	350	YM
CZMK 39	37.00	41.00	40	130	0.05	27.3	33.4	36.4	41.2	80	350	YN

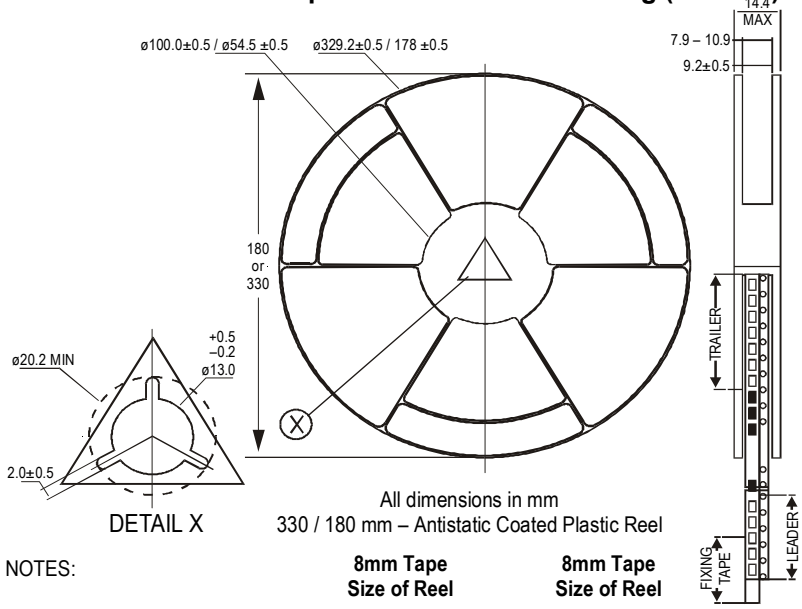
***Pulse test 20ms≤ t_p ≤50ms.

SOT-23 Formed SMD Package



SOT-23 Package Reel Information

Reel specification for W" Packing (13" reel)



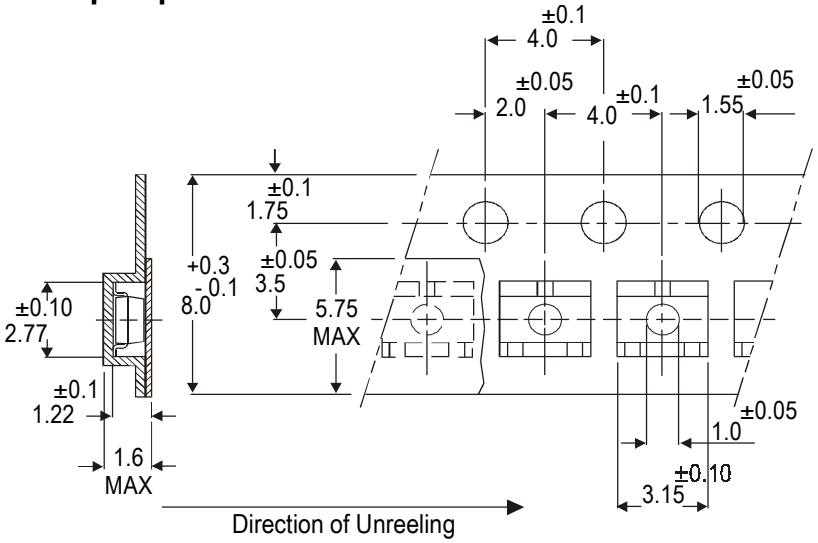
All dimensions in mm
330 / 180 mm – Antistatic Coated Plastic Reel

NOTES:

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



Packing Detail

All dimensions in mm

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

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