

SMD Zener Diode



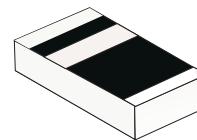
SMD Diodes Specialist

CZRNC55C2V0-G Thru. CZRNC55C75-G

Voltage: 2.0 to 75 Volts

Power: 0.5 Watts

RoHS Device

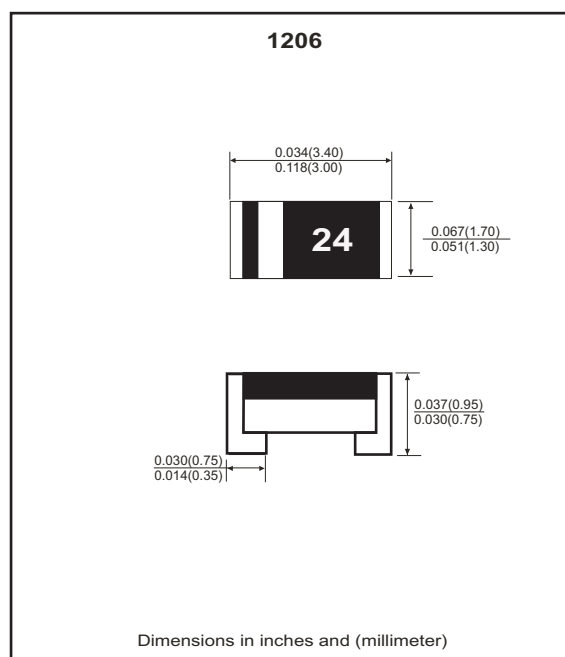


Features

- Silicon planar power zener diodes.
- Leadfree and RoHS Compliance components.

Mechanical data

- Size: 1206
- Weight: approx. 10mg
- Marking: Zener voltage & cathode band.



Maximum Rating and Thermal Characteristics (Tamb = 25°C)¹⁾

Parameter	Symbol	Value	Unit
Power Dissipation	P _{tot}	500	mW
Repetitive Peak Forward Current	I _{FRM}	200	mA
Junction Temperature	T _J	150	°C
Thermal Resistance Junction To Ambient Air	R _{θJA}	300	°C/W
Operating & Storage Temperature Range	T _{OPR} , T _{STG}	-55 to +150	°C

Notes: 1)Valid provided that electrodes are kept at ambient temperature

Electrical Characteristics (Tamb = 25°C)¹⁾

Parameter	Symbol	Max	Unit
Forward Voltage At I _F = 200mA	V _F	1.5	V
Zener Voltage Tolerance, C=±5%			

Notes: 1)Valid provided that electrodes are kept at ambient temperature

Electrical Characteristics(Ta = 25°C)

Part Number	Nominal Zener Voltage		Maximum Zener Impedance				Maximum Reverse Leakage Current		Marking Code
	VZ @ IZT		ZZT @ IZT		ZZK @ IZK		IR @ VR		
	Min V	Max V	(Ω)	(mA)	(Ω)	(mA)	(uA)	(V)	
CZRNC55C2V0-G	1.90	2.10	85	5.0	600	1.0	100	1	2
CZRNC55C2V2-G	2.09	2.31	85	5.0	600	1.0	75	1	2V2
CZRNC55C2V4-G	2.28	2.52	85	5.0	600	1.0	50	1	2V4
CZRNC55C2V7-G	2.57	2.84	85	5.0	600	1.0	10	1	2V7
CZRNC55C3V0-G	2.85	3.15	85	5.0	600	1.0	4	1	3
CZRNC55C3V3-G	3.14	3.47	85	5.0	600	1.0	2	1	3V3
CZRNC55C3V6-G	3.42	3.78	85	5.0	600	1.0	2	1	3V6
CZRNC55C3V9-G	3.71	4.10	85	5.0	600	1.0	2	1	3V9
CZRNC55C4V3-G	4.09	4.52	80	5.0	600	1.0	1	1	4V3
CZRNC55C4V7-G	4.47	4.94	70	5.0	600	1.0	0.5	1	4V7
CZRNC55C5V1-G	4.85	5.36	50	5.0	550	1.0	0.1	1	5V1
CZRNC55C5V6-G	5.32	5.88	30	5.0	450	1.0	0.1	1	5V6
CZRNC55C6V2-G	5.89	6.51	10	5.0	200	1.0	0.1	2	6V2
CZRNC55C6V8-G	6.46	7.14	8	5.0	150	1.0	0.1	3	6V8
CZRNC55C7V5-G	7.13	7.88	7	5.0	50	1.0	0.1	5	7V5
CZRNC55C8V2-G	7.79	8.61	7	5.0	50	1.0	0.1	6.2	8V2
CZRNC55C9V1-G	8.65	9.56	10	5.0	50	1.0	0.1	6.8	9V1
CZRNC55C10-G	9.50	10.50	15	5.0	70	1.0	0.1	7.5	10
CZRNC55C11-G	10.45	11.55	20	5.0	70	1.0	0.1	8.2	11
CZRNC55C12-G	11.40	12.60	20	5.0	90	1.0	0.1	9.1	12
CZRNC55C13-G	12.35	13.65	26	5.0	110	1.0	0.1	10	13
CZRNC55C15-G	14.25	15.75	30	5.0	110	1.0	0.1	11	15
CZRNC55C16-G	15.20	16.80	40	5.0	170	1.0	0.1	12	16
CZRNC55C18-G	17.10	18.90	50	5.0	170	1.0	0.1	13	18
CZRNC55C20-G	19.00	21.00	55	5.0	220	1.0	0.1	15	20
CZRNC55C22-G	20.90	23.10	55	5.0	220	1.0	0.1	16	22
CZRNC55C24-G	22.80	25.20	80	5.0	220	1.0	0.1	18	24
CZRNC55C27-G	25.65	28.35	80	5.0	220	1.0	0.1	20	27
CZRNC55C30-G	28.50	31.50	80	5.0	220	1.0	0.1	22	30
CZRNC55C33-G	31.35	34.65	80	5.0	220	1.0	0.1	24	33
CZRNC55C36-G	34.20	37.80	80	5.0	220	1.0	0.1	27	36
CZRNC55C39-G	37.05	40.95	90	2.5	500	0.5	0.1	29.3	39
CZRNC55C43-G	40.85	45.15	90	2.5	600	0.5	0.1	32.3	43
CZRNC55C47-G	44.65	49.35	110	2.5	700	0.5	0.1	35.3	47
CZRNC55C51-G	48.45	53.55	125	2.5	700	0.5	0.1	38.3	51
CZRNC55C56-G	53.20	58.80	135	2.5	1000	0.5	0.1	42	56
CZRNC55C62-G	58.90	65.10	150	2.5	1000	0.5	0.1	46.5	62
CZRNC55C68-G	64.60	71.40	200	2.5	1000	0.5	0.1	51	68
CZRNC55C75-G	71.25	78.75	250	2.5	1500	0.5	0.1	56.3	75

RATING AND CHARACTERISTIC CURVES (CZRNC55C2V0-G Thru CZRNC55C75-G)

Fig.1 Forward Current vs Forward Voltage

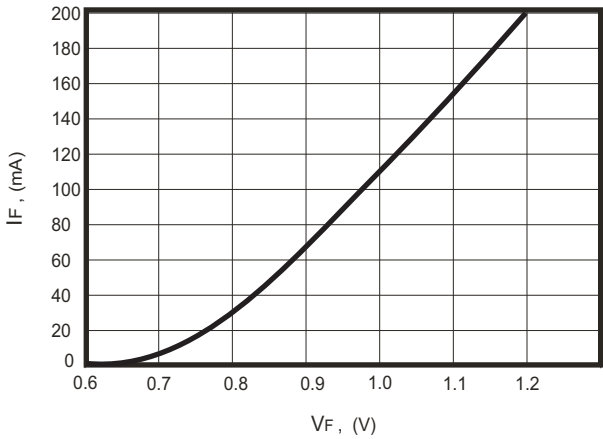
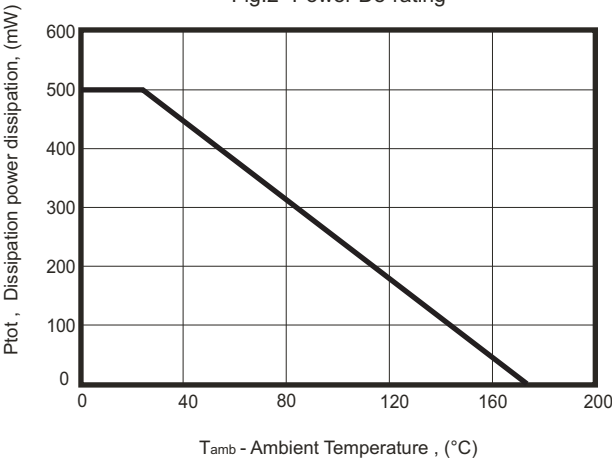
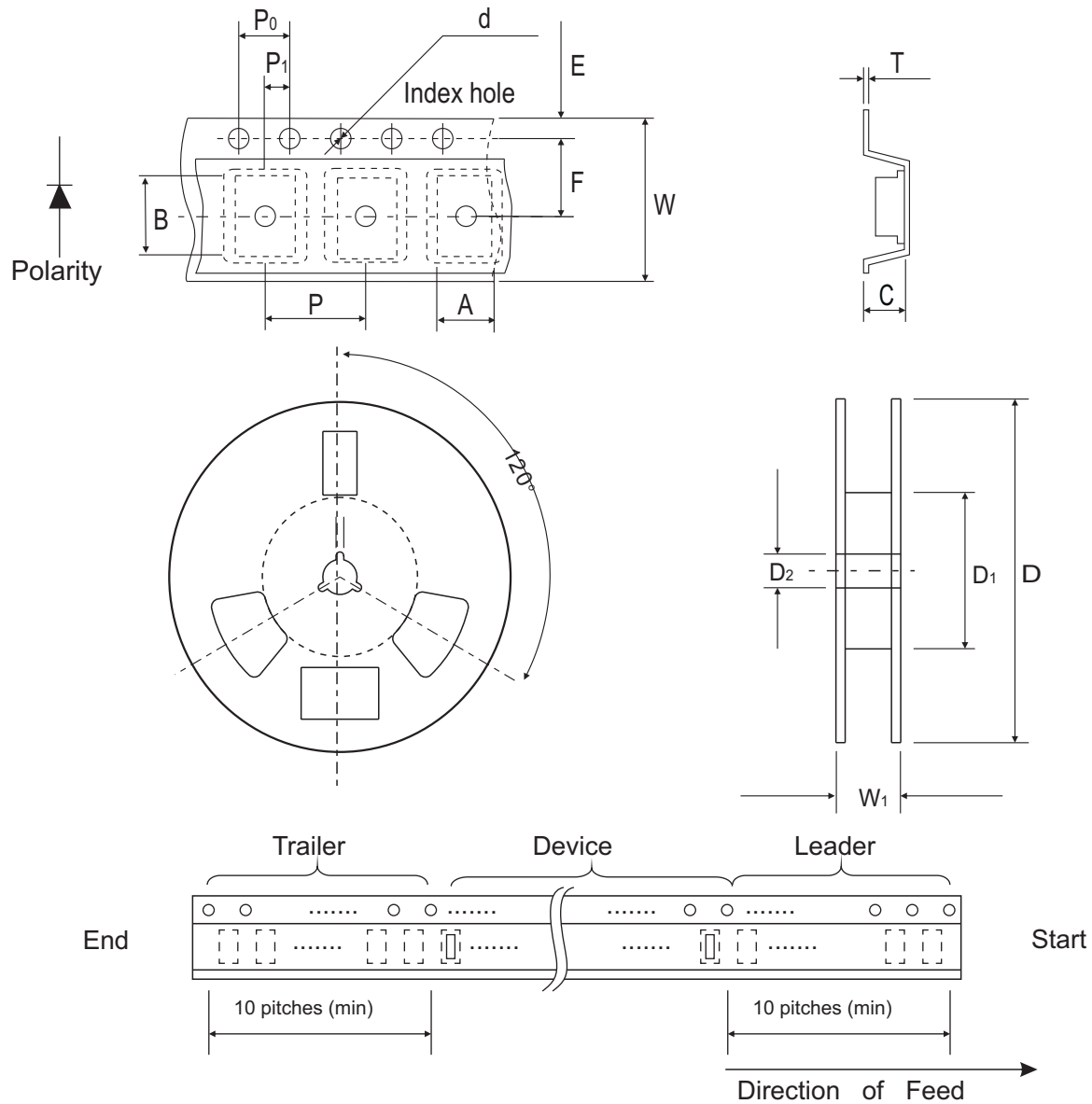


Fig.2- Power De-rating



Reel Taping Specification

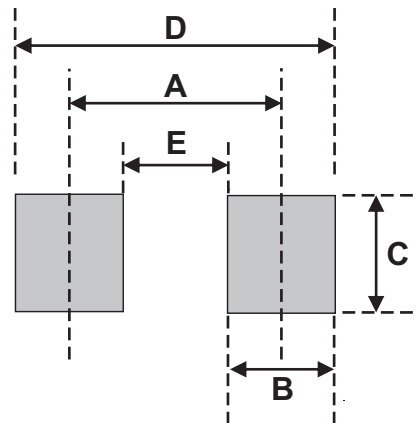


1206	SYMBOL	A	B	C	d	D	D ₁	D ₂
	(mm)	2.00 ± 0.20	3.60 ± 0.20	0.95 ± 0.05	1.50 ± 0.10	178.0 ± 1.00	60.0 ± 1.00	13.0 ± 0.30
	(inch)	0.079 ± 0.008	0.142 ± 0.008	0.037 ± 0.002	0.059 ± 0.004	7.007 ± 0.040	2.362 ± 0.040	0.512 ± 0.012

1206	SYMBOL	E	F	P	P ₀	P ₁	W	W ₁
	(mm)	1.75 ± 0.10	3.50 ± 0.10	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.05	8.00 ± 0.20	9.50 ± 0.30
	(inch)	0.689 ± 0.004	0.138 ± 0.004	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.002	0.315 ± 0.008	0.374 ± 0.012

Suggested PAD Layout

SIZE	1206	
	(mm)	(inch)
A	3.00~3.40	0.118~0.134
B	0.80~1.20	0.032~0.047
C	1.50~1.70	0.059~0.067
D	3.80~4.60	0.150~0.181
E	2.20	0.087



Standard Package

Case Type	Qty per Reel	Reel Size
	(Pcs)	(inch)
1206	5000	7