

CZRV52C2V4S-G Thru. CZRV52C43S-G

Voltage: 2.4 to 43 Volts

Power: 200 mWatts

RoHS Device

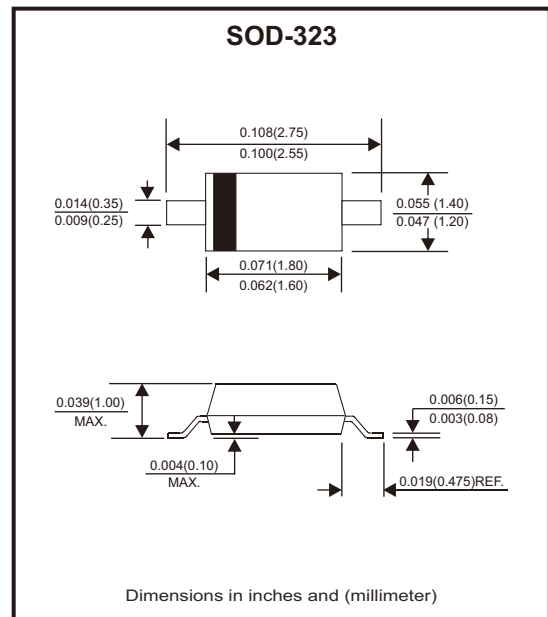


Features

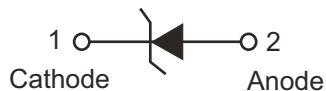
- 200mW power dissipation on ceramic PCB.
- General purpose, medium current.
- Ideally suited for automated assembly processes.
- Available in lead free version.

Mechanical data

- Case: SOD-323, Molded plastic.
- Terminals: Solder Plated, solderable per MIL-STD-750, method 2026.
- Polarity: Cathode band.
- Weight: 0.004 grams(approx.).



Circuit Diagram



Maximum Ratings (@Ta=25°C unless otherwise specified)

Parameter	Conditions	Symbol	Value	Unit
Forward voltage (Note 2)	$I_F=10\text{mA}$	V_F	0.9	V
Power dissipation (Note 1)		P_D	200	mW
Thermal resistance	Junction to ambient	$R_{\theta JA}$	625	°C/W
Junction temperature		T_J	150	°C
Storage temperature range		T_{STG}	-55 to +150	°C

Notes: 1. Device mounted on ceramic PCB: 7.6mm x 9.4mm x 0.87mm with pad areas 25mm².

2. Short duration test pulse used to minimize self-heating effect.

Electrical Characteristics (@Ta=25°C unless otherwise specified)

Part No.	Zener Voltage Range (Note 2)				Max. Zener Impedance f = 1kHz			Max. Reverse Current (Note 2)		Marking
	Vz @ IzT (V)			IzT	ZzT @ IzT	Zzk @ Izk	Izk	Ir @ Vr		Code
	Min.	Nom.	Max.	mA	Ω	Ω	mA	μA	V	
CZRV52C2V4S-G	2.2	2.4	2.6	5	100	600	1.0	50.0	1.0	WX
CZRV52C2V7S-G	2.5	2.7	2.9	5	100	600	1.0	20.0	1.0	W1
CZRV52C3V0S-G	2.8	3.0	3.2	5	95	600	1.0	10.0	1.0	W2
CZRV52C3V3S-G	3.1	3.3	3.5	5	95	600	1.0	5.0	1.0	W3
CZRV52C3V6S-G	3.4	3.6	3.8	5	90	600	1.0	5.0	1.0	W4
CZRV52C3V9S-G	3.7	3.9	4.1	5	90	600	1.0	3.0	1.0	W5
CZRV52C4V3S-G	4.0	4.3	4.6	5	90	600	1.0	3.0	1.0	W6
CZRV52C4V7S-G	4.4	4.7	5.0	5	80	500	1.0	3.0	2.0	W7
CZRV52C5V1S-G	4.8	5.1	5.4	5	60	480	1.0	2.0	2.0	W8
CZRV52C5V6S-G	5.2	5.6	6.0	5	40	400	1.0	1.0	2.0	W9
CZRV52C6V2S-G	5.8	6.2	6.6	5	10	150	1.0	3.0	4.0	WA
CZRV52C6V8S-G	6.4	6.8	7.2	5	15	80	1.0	2.0	4.0	WB
CZRV52C7V5S-G	7.0	7.5	7.9	5	15	80	1.0	1.0	5.0	WC
CZRV52C8V2S-G	7.7	8.2	8.7	5	15	80	1.0	0.7	5.0	WD
CZRV52C9V1S-G	8.5	9.1	9.6	5	15	100	1.0	0.5	6.0	WE
CZRV52C10S-G	9.4	10.0	10.6	5	20	150	1.0	0.2	7.0	WF
CZRV52C11S-G	10.4	11.0	11.6	5	20	150	1.0	0.1	8.0	WG
CZRV52C12S-G	11.4	12.0	12.7	5	25	150	1.0	0.1	8.0	WH
CZRV52C13S-G	12.4	13.0	14.1	5	30	170	1.0	0.1	8.0	WI
CZRV52C15S-G	13.8	15.0	15.6	5	30	200	1.0	0.1	10.5	WJ
CZRV52C16S-G	15.3	16.0	17.1	5	40	200	1.0	0.1	11.2	WK
CZRV52C18S-G	16.8	18.0	19.1	5	45	225	1.0	0.1	12.6	WL
CZRV52C20S-G	18.8	20.0	21.2	5	55	225	1.0	0.1	14.0	WM
CZRV52C22S-G	20.8	22.0	23.3	5	55	250	1.0	0.1	15.4	WN
CZRV52C24S-G	22.8	24.0	25.6	5	70	250	1.0	0.1	16.8	WO
CZRV52C27S-G	25.1	27.0	28.9	2	80	300	0.5	0.1	18.9	WP
CZRV52C30S-G	28.0	30.0	32.0	2	80	300	0.5	0.1	21.0	WQ
CZRV52C33S-G	31.0	33.0	35.0	2	80	325	0.5	0.1	23.1	WR
CZRV52C36S-G	34.0	36.0	38.0	2	90	350	0.5	0.1	25.2	WS
CZRV52C39S-G	37.0	39.0	41.0	2	130	350	0.5	0.1	27.3	WT
CZRV52C43S-G	40.0	43.0	46.0	2	100	700	1.0	0.1	32.0	WU

Notes: 1. Device mounted on ceramic PCB: 7.6mm x 9.4mm x 0.87mm with pad areas 25mm².
2. Short duration test pulse used to minimize self-heating effect.

Company reserves the right to improve product design , functions and reliability without notice.

REV:B

Rating and Characteristic Curves (CZRV52C2V4S-G Thru. CZRV52C43S-G)

Fig.1 - Zener Characteristics (V_z Up to 10V)

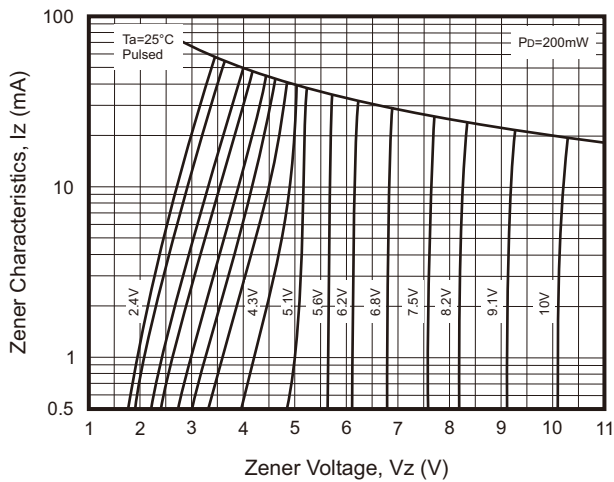


Fig.1 - Zener Characteristics (11V to 43V)

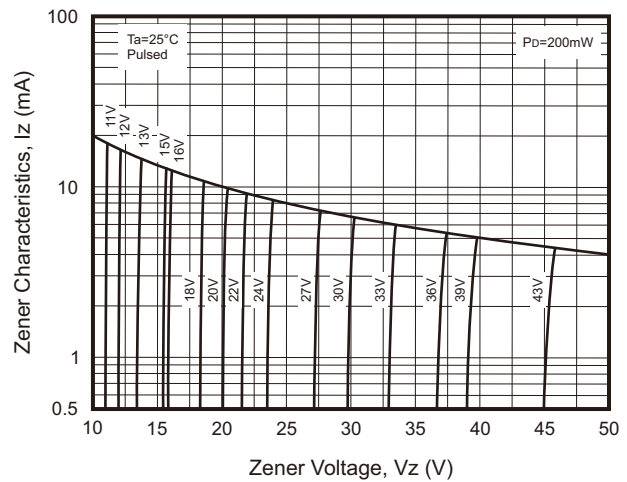


Fig.3 - Typical Capacitance

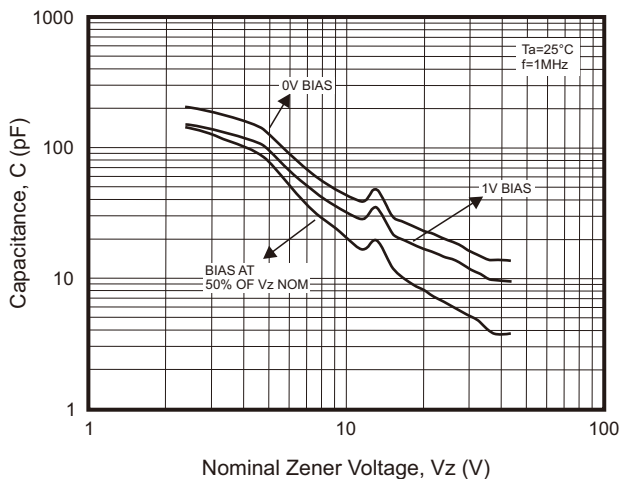


Fig.4 - Effect of Zener Voltage on Zener Impedance

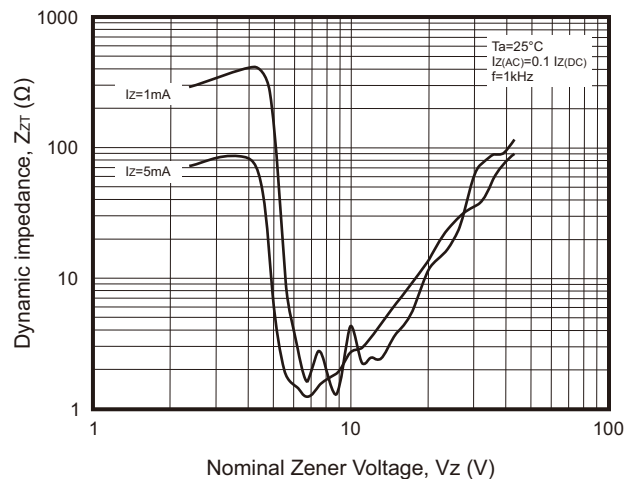
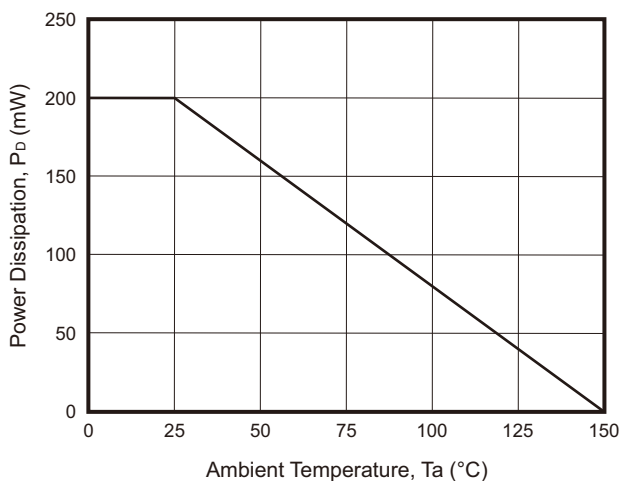


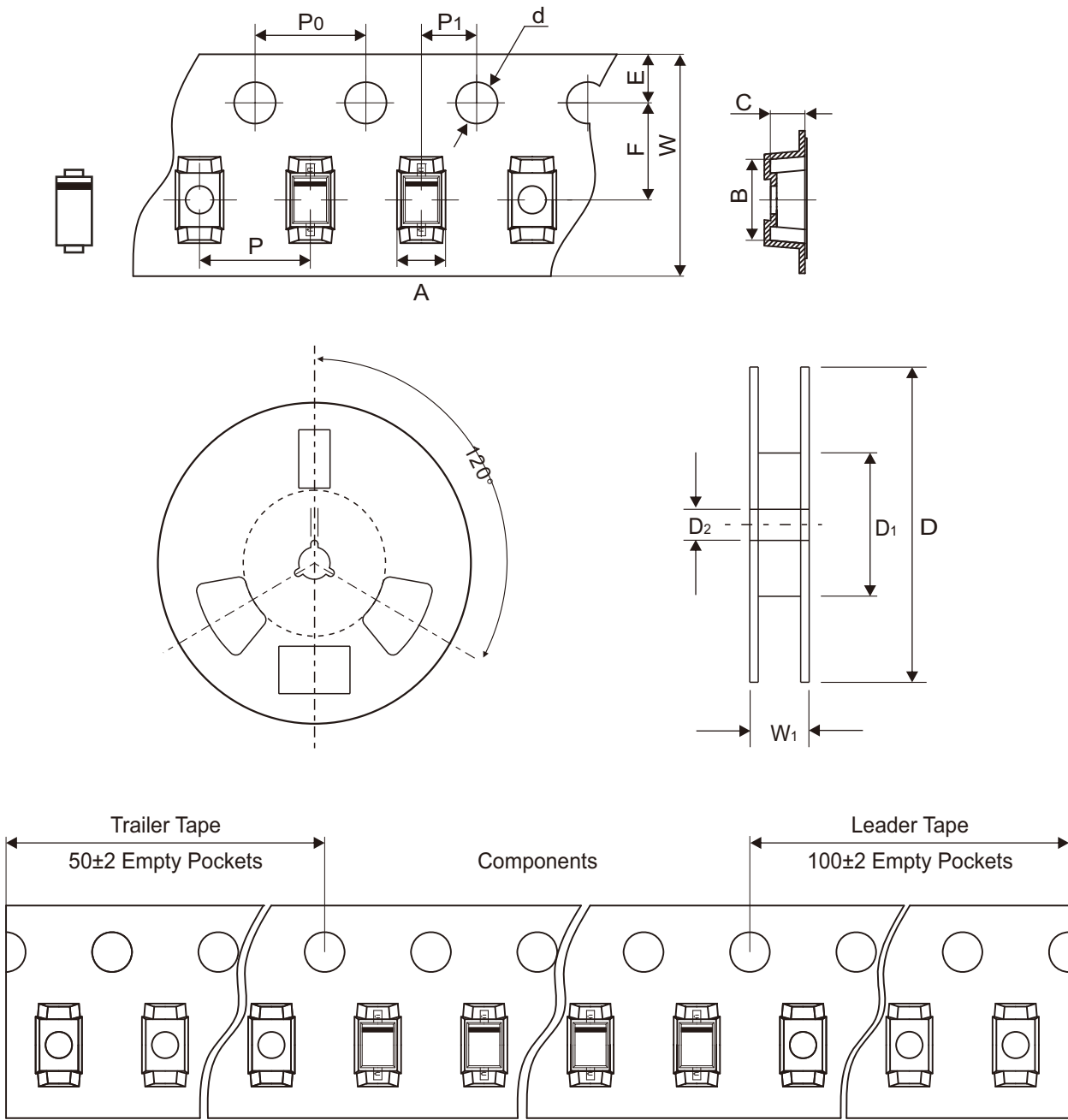
Fig.5 - Power Derating Curve



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REV:B

Reel Taping Specification

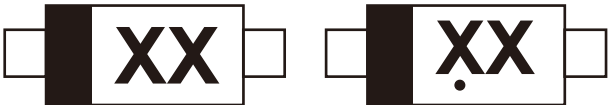


SOD-323	SYMBOL	A	B	C	d	D	D ₁	D ₂
	(mm)	1.46 ± 0.10	2.90 ± 0.10	1.25 ± 0.10	1.50 + 0.10 - 0	178.00 ± 2.00	54.40 ± 1.00	13.00 ± 1.00
	(inch)	0.057 ± 0.004	0.114 ± 0.004	0.049 ± 0.004	0.059 + 0.004 - 0	7.008 ± 0.079	2.142 ± 0.039	0.512 ± 0.039

SOD-323	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 ± 0.10	8.00 + 0.30 - 0.10	12.30 ± 1.00
	(inch)	0.069 ± 0.004	0.138 ± 0.004	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.315 + 0.012 - 0.004	0.484 ± 0.039

Marking Code

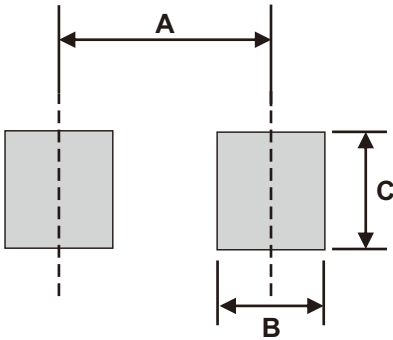
Part Number	Marking Code
CZRV52C2V4S-G Thru. CZRV52C43S-G	See Page.2



■ = Cathode band
Solid dot = Control code
xx = Product type marking code

Suggested P.C.B. PAD Layout

SIZE	SOD-323	
	(mm)	(inch)
A	2.15	0.085
B	0.70	0.028
C	0.70	0.028



Note: 1.General tolerance: $\pm 0.05\text{mm}$.
2.The pad layout is for reference purposes only.

Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
SOD-323	3,000	7