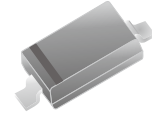
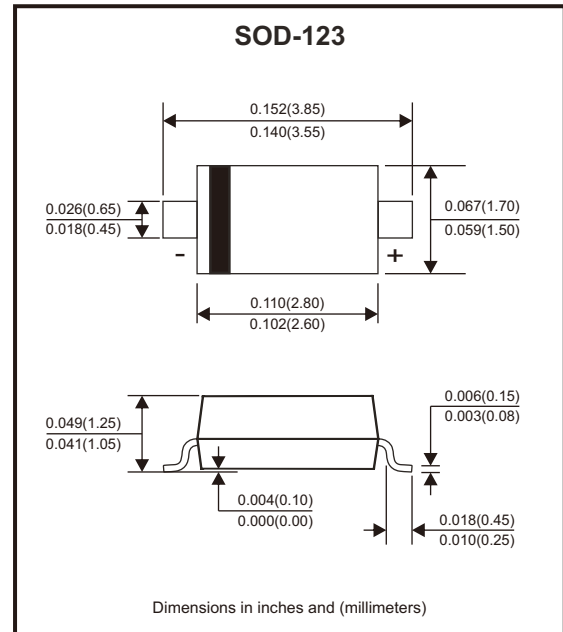


CZRW55C2V4-HF Thru CZRW55C39-HF**Voltage: 2.4 to 39 Volts****Power: 500 mWatts****RoHS Device****Halogen Free****Features**

- Planar die construction.
- 500mW power dissipation on ceramic PCB.
- General purpose, medium current.
- Ideally suited for automated assembly processes.

Mechanical data

- Case: SOD-123, molded plastic.
- Polarity: Indicated by cathode band.
- Mounting position: Any.

**Circuit Diagram****Maximum Ratings** ($T_A=25^{\circ}\text{C}$, unless otherwise specified)

Parameter	Symbol	Value	Unit
Forward voltage at $I_F = 10\text{mA}$ (Note 2)	V_F	0.9	V
Power dissipation (Note 1)	P_D	500	mW
Thermal resistance from junction to ambient (Note 1)	$R_{\theta JA}$	250	$^{\circ}\text{C/W}$
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +150	$^{\circ}\text{C}$

Electrical Characteristics (T_A=25°C, unless otherwise specified)

Part No.	Zener Voltage Range (Note 2)				Maximum Zener Impedance @ f = 1kHz			Maximum Reverse Current (Note 2)		Typical Temperature Coefficient @ I _{ZTC} mV/°C		Test Current I _{ZTC}	Marking Code
	V _Z @ I _{ZT}			I _{ZT}	Z _{ZT} @I _{ZT}	Z _{ZK} @I _{ZK}	I _{ZK}	I _R @ V _R		Min	Max		
	Min(V)	Nom(V)	Max(V)	mA	Ω	Ω	mA	μA	V			Min	
CZRW55C2V4-HF	2.2	2.4	2.6	5	100	600	1.0	50	1.0	-3.5	0	5	WX
CZRW55C2V7-HF	2.5	2.7	2.9	5	100	600	1.0	20	1.0	-3.5	0	5	W1
CZRW55C3V0-HF	2.8	3.0	3.2	5	95	600	1.0	10	1.0	-3.5	0	5	W2
CZRW55C3V3-HF	3.1	3.3	3.5	5	95	600	1.0	5	1.0	-3.5	0	5	W3
CZRW55C3V6-HF	3.4	3.6	3.8	5	90	600	1.0	5	1.0	-3.5	0	5	W4
CZRW55C3V9-HF	3.7	3.9	4.1	5	90	600	1.0	3	1.0	-3.5	0	5	W5
CZRW55C4V3-HF	4.0	4.3	4.6	5	90	600	1.0	3	1.0	-3.5	0	5	W6
CZRW55C4V7-HF	4.4	4.7	5.0	5	80	500	1.0	3	2.0	-3.5	0.2	5	W7
CZRW55C5V1-HF	4.8	5.1	5.4	5	60	480	1.0	2	2.0	-2.7	1.2	5	W8
CZRW55C5V6-HF	5.2	5.6	6.0	5	40	400	1.0	1	2.0	-2.0	2.5	5	W9
CZRW55C6V2-HF	5.8	6.2	6.6	5	10	150	1.0	3	4.0	0.4	3.7	5	WA
CZRW55C6V8-HF	6.4	6.8	7.2	5	15	80	1.0	2	4.0	1.2	4.5	5	WB
CZRW55C7V5-HF	7.0	7.5	7.9	5	15	80	1.0	1	5.0	2.5	5.3	5	WC
CZRW55C8V2-HF	7.7	8.2	8.7	5	15	80	1.0	0.7	5.0	3.2	6.2	5	WD
CZRW55C9V1-HF	8.5	9.1	9.6	5	15	100	1.0	0.5	6.0	3.8	7.0	5	WE
CZRW55C10-HF	9.4	10	10.6	5	20	150	1.0	0.2	7.0	4.5	8.0	5	WF
CZRW55C11-HF	10.4	11	11.6	5	20	150	1.0	0.1	8.0	5.4	9.0	5	WG
CZRW55C12-HF	11.4	12	12.7	5	25	150	1.0	0.1	8.0	6.0	10.0	5	WH
CZRW55C13-HF	12.4	13	14.1	5	30	170	1.0	0.1	8.0	7.0	11.0	5	WI
CZRW55C15-HF	13.8	15	15.6	5	30	200	1.0	0.1	10.5	9.2	13.0	5	WJ
CZRW55C16-HF	15.3	16	17.1	5	40	200	1.0	0.1	11.2	10.4	14.0	5	WK
CZRW55C18-HF	16.8	18	19.1	5	45	225	1.0	0.1	12.6	12.4	16.0	5	WL
CZRW55C20-HF	18.8	20	21.2	5	55	225	1.0	0.1	14.0	14.4	18.0	5	WM
CZRW55C22-HF	20.8	22	23.3	5	55	250	1.0	0.1	15.4	16.4	20.0	5	WN
CZRW55C24-HF	22.8	24	25.6	5	70	250	1.0	0.1	16.8	18.4	22.0	5	WO
CZRW55C27-HF	25.1	27	28.9	2	80	300	0.5	0.1	18.9	21.4	25.3	2	WP
CZRW55C30-HF	28.0	30	32.0	2	80	300	0.5	0.1	21.0	24.4	29.4	2	WQ
CZRW55C33-HF	31.0	33	35.0	2	80	325	0.5	0.1	23.1	27.4	33.4	2	WR
CZRW55C36-HF	34.0	36	38.0	2	90	350	0.5	0.1	25.2	30.4	37.4	2	WS
CZRW55C39-HF	37.0	39	41.0	2	130	350	0.5	0.1	27.3	33.4	41.2	2	WT

Notes: 1. The value of R_{θJA} is measured with the device mounted on 1 in 2 FR-4 board with 2oz. copper, in a still air environment with T_a=25°C.

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

Ratings and Characteristic Curves (CZRW55C2V4-HF Thru. CZRW55C39-HF)

Fig.1 - Zener Characteristics

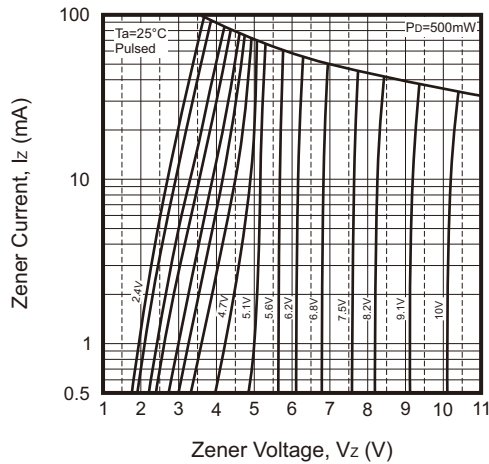


Fig.2 - Zener Characteristics

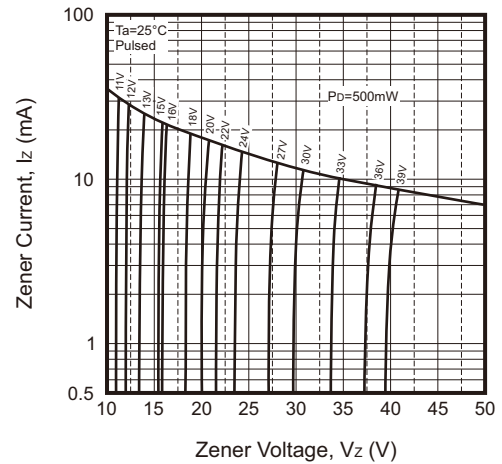


Fig.3 - Temperature Coefficients

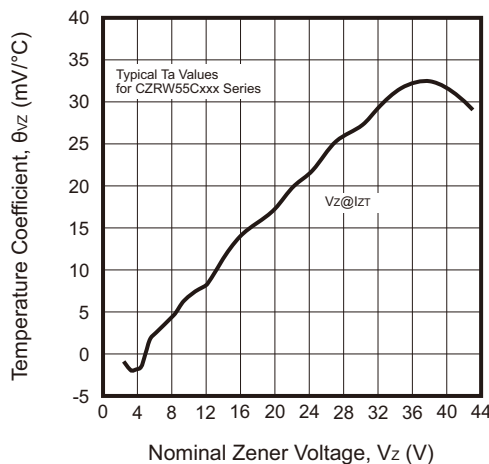


Fig.4 - Typical Leakage Current

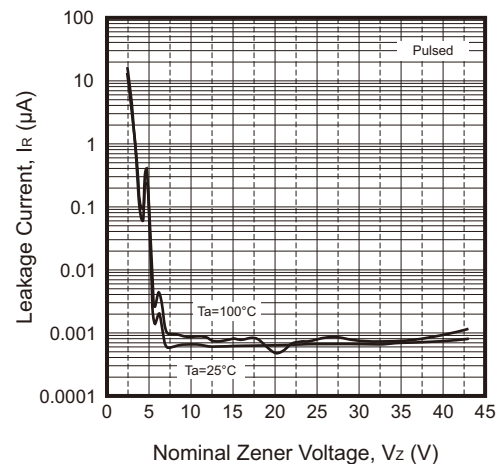


Fig.5 - Typical Capacitance

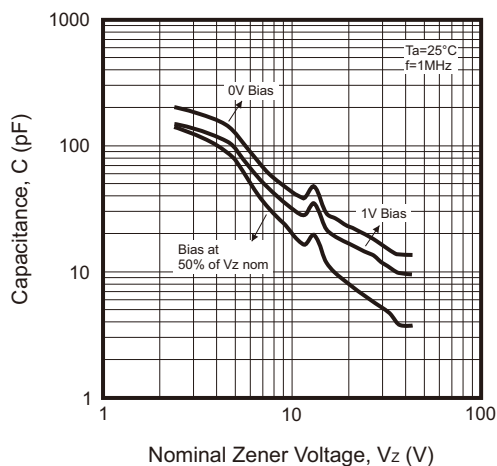
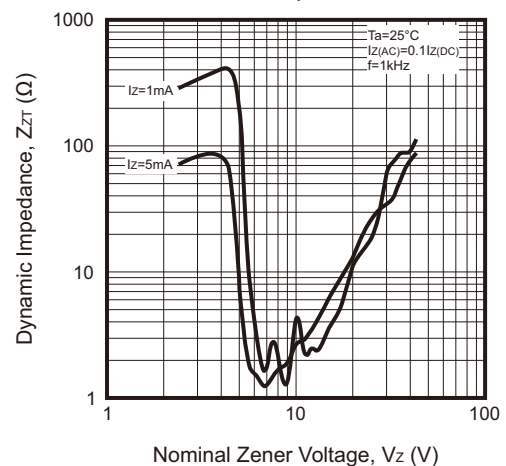
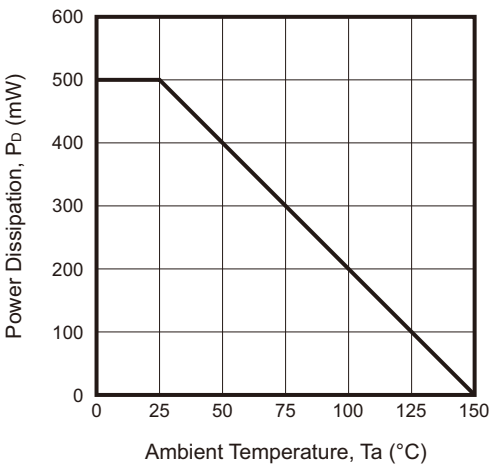


Fig.6 - Effect of Zener Voltage on Zener Impedance

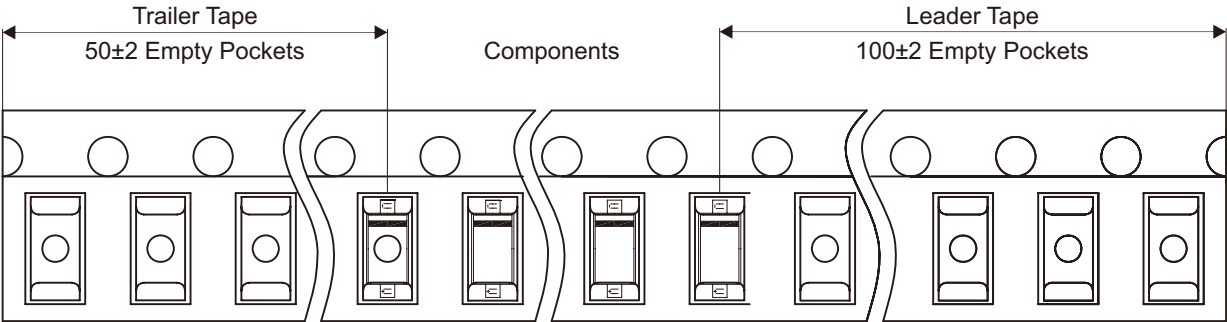
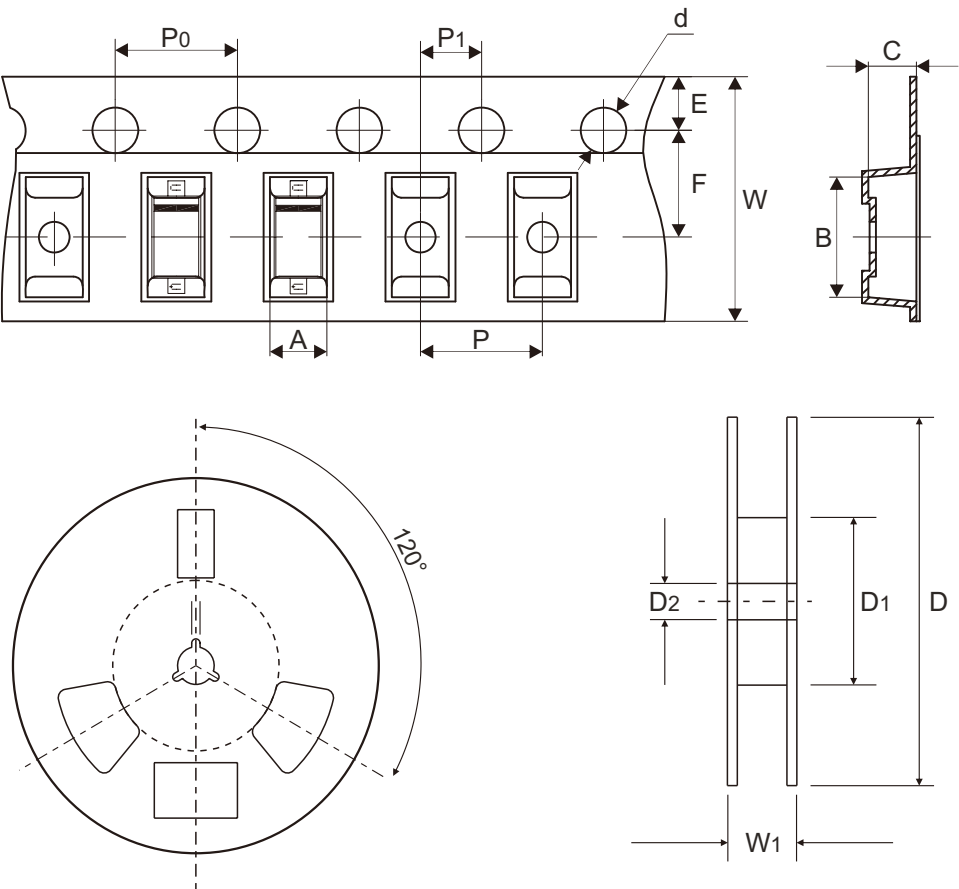


Ratings and Characteristic Curves (CZRW55C2V4-HF Thru. CZRW55C39-HF)

Fig.7 - Power Derating Curve



Reel Taping Specification



SOD-123	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	1.85 ± 0.10	3.95 ± 0.10	1.57 ± 0.10	1.55 ± 0.10	178.00 ± 1.00	54.40 ± 0.40	13.00 ± 0.20
	(inch)	0.073 ± 0.004	0.156 ± 0.004	0.062 ± 0.004	0.061 ± 0.004	7.008 ± 0.039	2.142 ± 0.016	0.512 ± 0.008

SOD-123	SYMBOL	E	F	P	P1	P0	W	W1
	(mm)	1.75 ± 0.10	3.50 ± 0.05	4.00 ± 0.10	2.00 ± 0.10	4.00 ± 0.10	8.00 ± 1.00	12.30 ± 1.00
	(inch)	0.069 ± 0.004	0.138 ± 0.002	0.157 ± 0.004	0.079 ± 0.004	0.157 ± 0.004	0.315 ± 0.039	0.484 ± 0.039

Marking Code

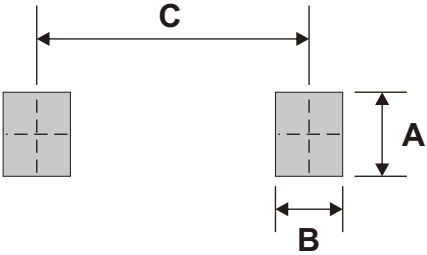
Part Number	Marking Code
CZRW55C2V4-HF Thru. CZRW55C39-HF	See Page.2



■ = Cathode band
Solid dot = Control code
xx = Marking code (see Page. 2)

Suggested P.C.B. PAD Layout

SIZE	SOD-123	
	(mm)	(inch)
A	1.00	0.039
B	0.80	0.031
C	3.24	0.128



Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
SOD-123	3,000	7