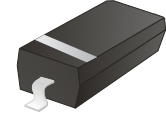


## CZRW4678-G Thru. CZRW4717-G

Voltage: 1.8 to 43 Volts

Power: 350mW

RoHS Device

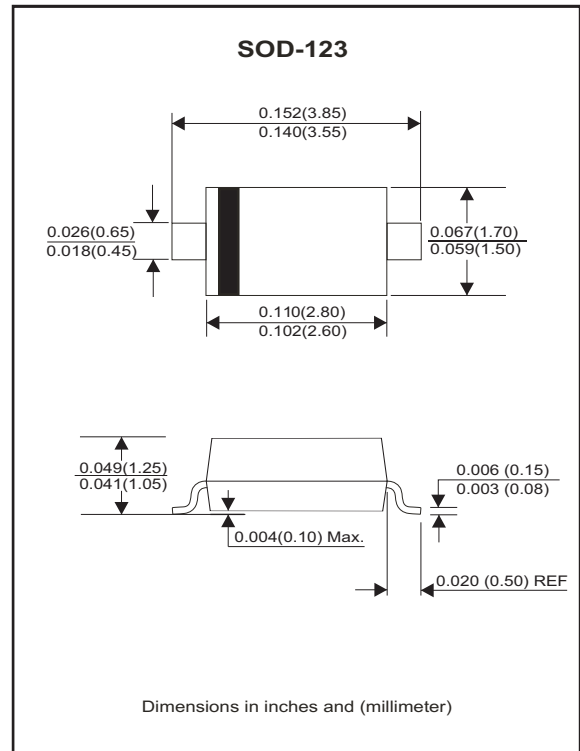


### Features

- For surface mounted applications.
- Wide zener reverse voltage range.
- Small package size for high density applications.
- ESD Rating of class 3(>16KV) per human body model.
- Maximum case temperature for soldering purposes: 260°C for 10 Seconds

### Mechanical data

- Case: SOD-123, Void-free, transfer-molded, Thermosetting plastic case.
- Finish: Corrosion resistant finish, easily solderable.
- Terminals: Solder Plated, solderable per MIL-STD-750, method 2026.
- Polarity: Cathode band.
- Weight: 0.01 grams(approx.).



### Circuit diagram



### Maximum Rating (@T<sub>A</sub>=25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Maximum forward voltage @ IF=10mA	V <sub>F</sub>	0.9	V
Maximum power dissipation	P <sub>D</sub>	350	mW
Thermal resistance, Junction to ambient air	R <sub>θJA</sub>	357	°C/W
Junction temperature range	T <sub>J</sub>	-65 to +150	°C
Storage temperature range	T <sub>STG</sub>	-65 to +150	°C

Notes: Device mounted on ceramic PCB; 5.0mm\*7.0mm with pad areas 35mm<sup>2</sup>.

## Electrical Characteristics ( at T<sub>A</sub> = 25°C unless otherwise noted)

Part Number	Zener Voltage (Note 1)			Leakage Current			Marking Code
	V <sub>Z</sub> (Volts)			@I <sub>ZT</sub>	I <sub>R</sub> @V <sub>R</sub>		
	Min	Nom	Max	µA	µA	Volts	
CZRW4678-G	1.71	1.8	1.89	50	7.5	1	CC
CZRW4679-G	1.90	2.0	2.10	50	5	1	CD
CZRW4680-G	2.09	2.2	2.31	50	4	1	CE
CZRW4681-G	2.28	2.4	2.52	50	2	1	CF
CZRW4682-G	2.565	2.7	2.835	50	1	1	CH
CZRW4683-G	2.85	3.0	3.15	50	0.8	1	CJ
CZRW4684-G	3.13	3.3	3.47	50	7.5	1.5	CK
CZRW4685-G	3.42	3.6	3.78	50	7.5	2	CM
CZRW4686-G	3.70	3.9	4.10	50	5	2	CN
CZRW4687-G	4.09	4.3	4.52	50	4	2	CP
CZRW4688-G	4.47	4.7	4.94	50	10	3	CT
CZRW4689-G	4.85	5.1	5.36	50	10	3	CU
CZRW4690-G	5.32	5.6	5.88	50	10	4	CV
CZRW4691-G	5.89	6.2	6.51	50	10	5	CA
CZRW4692-G	6.46	6.8	7.14	50	10	5.1	CX
CZRW4693-G	7.13	7.5	7.88	50	10	5.7	CY
CZRW4694-G	7.79	8.2	8.61	50	1	6.2	CZ
CZRW4695-G	8.27	8.7	9.14	50	1	6.6	DC
CZRW4696-G	8.65	9.1	9.56	50	1	6.9	DD
CZRW4697-G	9.50	10	10.50	50	1	7.6	DE
CZRW4698-G	10.45	11	11.55	50	0.05	8.4	DF
CZRW4699-G	11.40	12	12.60	50	0.05	9.1	DH
CZRW4700-G	12.35	13	13.65	50	0.05	9.8	DJ
CZRW4701-G	13.30	14	14.70	50	0.05	10.6	DK
CZRW4702-G	14.25	15	15.75	50	0.05	11.4	DM
CZRW4703-G	15.20	16	16.80	50	0.05	12.1	DN
CZRW4704-G	16.15	17	17.85	50	0.05	12.9	DP
CZRW4705-G	17.10	18	18.90	50	0.05	13.6	DT
CZRW4706-G	18.05	19	19.95	50	0.05	14.4	DU
CZRW4707-G	19.00	20	21.00	50	0.01	15.2	DV
CZRW4708-G	20.90	22	23.10	50	0.01	16.7	DA
CZRW4709-G	22.80	24	25.20	50	0.01	18.2	DX
CZRW4710-G	23.75	25	26.25	50	0.01	19.0	DY
CZRW4711-G	25.65	27	28.35	50	0.01	20.4	EA
CZRW4712-G	26.60	28	29.40	50	0.01	21.2	EC
CZRW4713-G	28.50	30	31.50	50	0.01	22.8	ED
CZRW4714-G	31.35	33	34.65	50	0.01	25.0	EE
CZRW4715-G	34.20	36	37.80	50	0.01	27.3	EF
CZRW4716-G	37.05	39	40.95	50	0.01	29.6	EH
CZRW4717-G	40.85	43	45.15	50	0.01	32.6	EJ

Notes: 1. Nominal Zener voltage is measured with the device junction in thermal equilibrium at T<sub>L</sub>=30°C ±1°C

## RATING AND CHARACTERISTIC CURVES ( CZRW4678-G Thru. CZRW4717-G )

Fig.1 - Forward characteristics

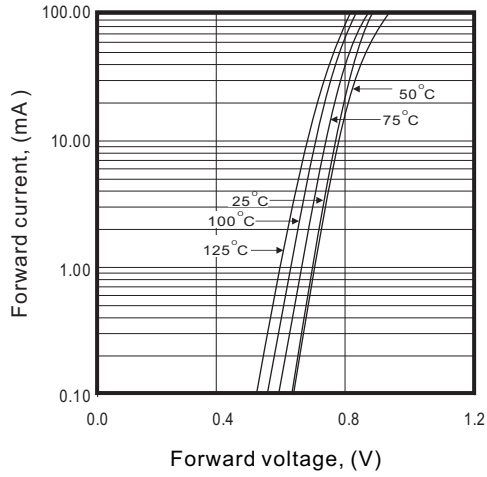


Fig.2 - Reverse characteristic

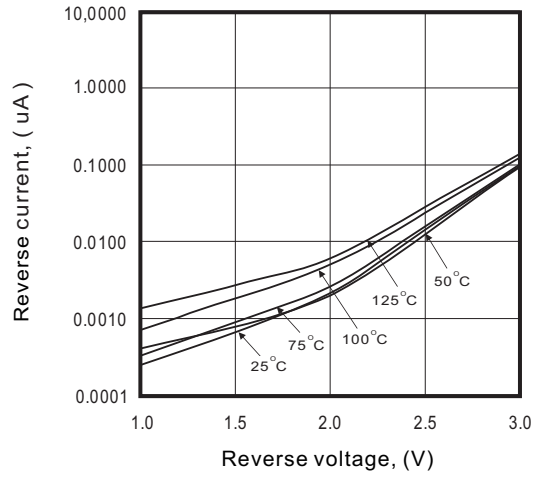


Fig.3 - Capacitance between terminals characteristics

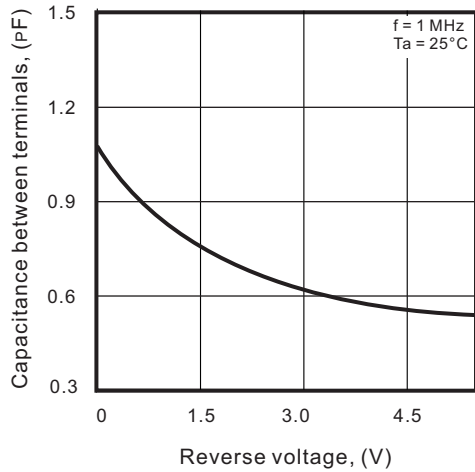
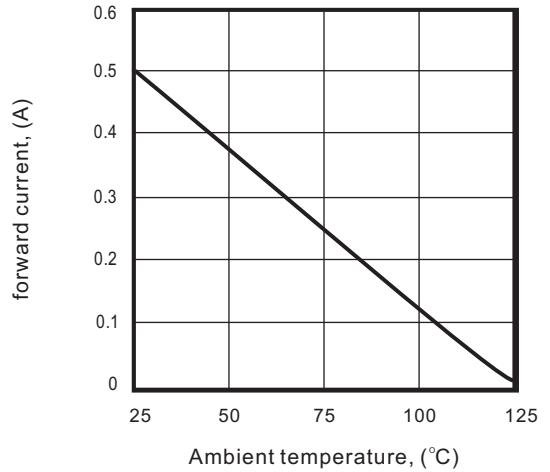
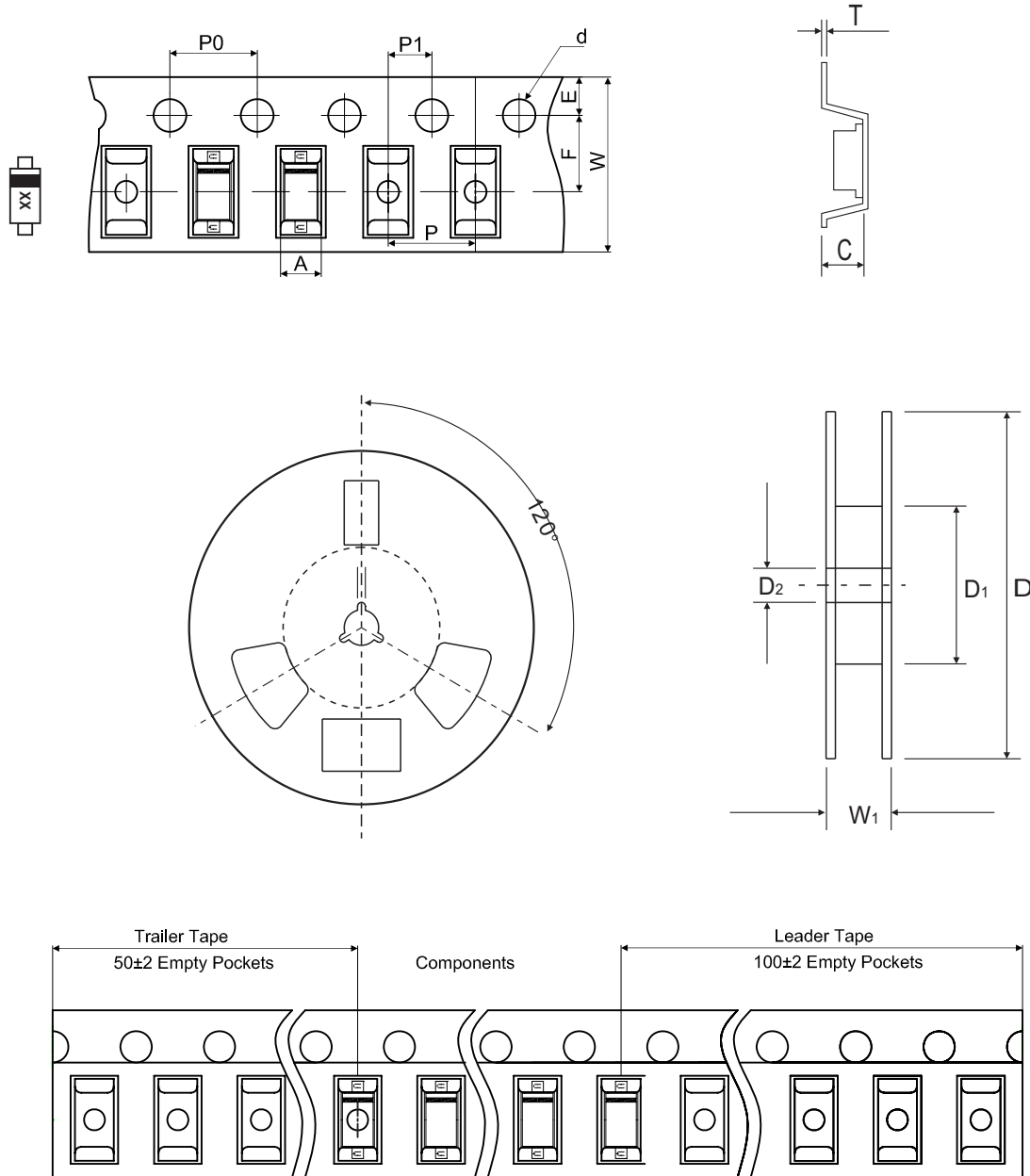


Fig.4 - Power derating



## Reel Taping Specification



SOD-123	SYMBOL	A	B	C	d	D	D <sub>1</sub>	D <sub>2</sub>
	(mm)	1.85 ± 0.05	3.94 ± 0.05	1.57 ± 0.05	1.55 ± 0.10	178 ± 2.00	54.40 ± 1.00	13.00 ± 1.00
	(inch)	0.073 ± 0.002	0.155 ± 0.002	0.062 ± 0.002	0.061 ± 0.004	7.008 ± 0.079	2.142 ± 0.039	0.512 ± 0.039

SOD-123	SYMBOL	E	F	P	P <sub>0</sub>	P <sub>1</sub>	W	W <sub>1</sub>
	(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 ± 1.0
	(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

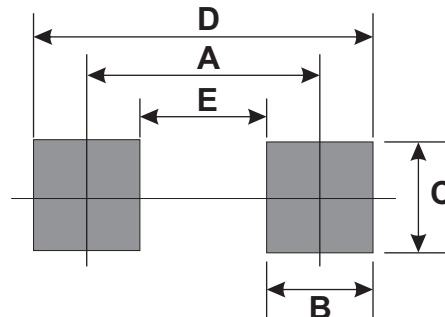
Part Number	Marking Code
CZRW4678-G Thru. CZRW4717-G Series	XX



1. XXX: Marking code (see Page.2)
2. █ : Cathod Band

## Suggested PAD Layout

SIZE	SOD-123	
	(mm)	(inch)
A	3.24	0.128
B	0.80	0.031
C	1.00	0.039
D	4.04	0.159
E	2.44	0.096



## Standard Packaging

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