CDZ15WT2 Thru CDZ15WT39

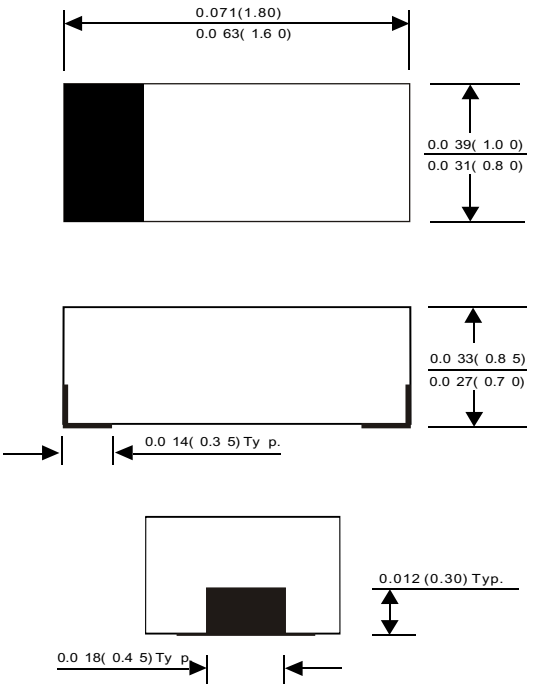
Crownpo Technology

Surface Mount Zener Rectifiers

Voltage 2 to 39 Volts

Power 150 mWatts

0603-C



Dimensions in inches and (millimeter)

Features

- 150mW Power Dissipation.
- High Voltages from 2 ~ 39 V.
- Designed for mounting on small surface.
- Extremely thin/leadless package.
- Pb free product.

Mechanical data

Case: 0603-C Standard package
Molded plastic.
Terminals: Gold plated, solderable per
MIL-STD-750,method 2026.
Polarity: Indicated by cathode band.
Weight: 0.003 gram(approx.).

Maximum Rating AND Electrical Characteristics

Parameter	Symbol	Value	Unit
Maximum Forward Voltage Drop at I_F = 10 mA	V_F	0.9	V
Maximum Power Dissipation at 25 C°	P_D	150	mW
Forward current , surge peak 8.3 ms single half sine-wave superimposed on rate load(JEDEC method)	I_{FSM}	2.0	A
Operating Junction and Storage Temperature Range	T_J	-55 to +125	°C

Electrical Characteristics(Ta = 25°C)

Part Number	Marking Code	Zener Voltage			Operating resistance		Rising operating Resistance		Reverse current	
		V_Z(V)			ZZT(Ohm)		ZZK(Ohm)		IR(uA)	
		Min	Max	I_Z(mA)	Max	I_Z(mA)	Max	I_Z(mA)	Max	V_R(V)
CDZ15WT2	Z0	1.90	2.10	5	100	5	600	1	100	1
CDZ15WT2V2	Z1	2.09	2.31	5	100	5	600	1	100	1
CDZ15WT2V4	Z2	2.28	2.52	5	85	5	600	1	100	1
CDZ15WT2V7	Z3	2.57	2.84	5	83	5	500	1	75	1
CDZ15WT3	Z4	2.85	3.15	5	95	5	500	1	50	1
CDZ15WT3V3	Z5	3.14	3.47	5	95	5	500	1	25	1
CDZ15WT3V6	Z6	3.42	3.78	5	95	5	500	1	15	1
CDZ15WT3V9	Z7	3.71	4.10	5	95	5	500	1	10	1
CDZ15WT4V3	Z8	4.09	4.52	5	95	5	500	1	5	1
CDZ15WT4V7	Z9	4.47	4.94	5	78	5	500	1	5	2
CDZ15WT5V1	ZA	4.85	5.36	5	60	5	480	1	0.1	0.8
CDZ15WT5V6	ZB	5.32	5.88	5	40	5	400	1	0.1	1
CDZ15WT6V2	ZC	5.89	6.51	5	10	5	200	1	0.1	2
CDZ15WT6V8	ZE	6.46	7.14	5	8	5	150	1	0.1	3
CDZ15WT7V5	ZF	7.13	7.88	5	7	5	50	1	0.1	5
CDZ15WT8V2	ZG	7.79	8.61	5	7	5	50	1	0.1	6
CDZ15WT9V1	ZH	8.65	9.56	5	10	5	50	1	0.1	7
CDZ15WT10	ZJ	9.50	10.50	5	15	5	70	1	0.1	7.5
CDZ15WT11	ZK	10.45	11.55	5	20	5	70	1	0.1	8.5
CDZ15WT12	ZM	11.40	12.60	5	20	5	90	1	0.1	9
CDZ15WT13	ZN	12.35	13.65	5	25	5	110	1	0.1	10
CDZ15WT15	ZP	14.25	15.75	5	30	5	110	1	0.1	11
CDZ15WT16	ZQ	15.20	16.80	5	40	5	170	1	0.1	12
CDZ15WT18	ZR	17.10	18.90	5	50	5	170	1	0.1	14
CDZ15WT20	ZS	19.00	21.00	5	50	5	220	1	0.1	15
CDZ15WT22	ZT	20.90	23.10	5	55	5	220	1	0.1	17
CDZ15WT24	ZU	22.80	25.20	5	80	5	220	1	0.1	18
CDZ15WT27	ZV	25.65	28.35	5	80	5	250	1	0.1	20
CDZ15WT30	ZW	28.50	31.50	5	80	5	250	1	0.1	23
CDZ15WT33	ZX	31.35	34.65	5	80	5	250	1	0.1	25
CDZ15WT36	ZY	34.20	37.80	5	90	5	250	1	0.1	27
CDZ15WT39	ZZ	37.05	40.95	5	90	5	300	1	0.1	29

RATING AND CHARACTERISTIC CURVES (CDZ15WT2 Thru CDZ15WT39)

Fig.1 TEMPERATURE COEFFICENTS

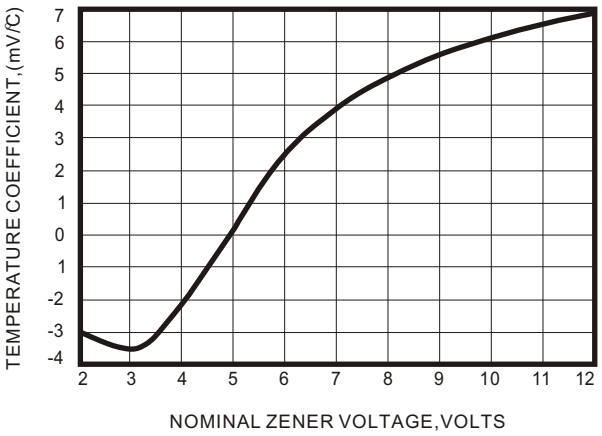


Fig.2 TEMPERATURE COEFFICENTS

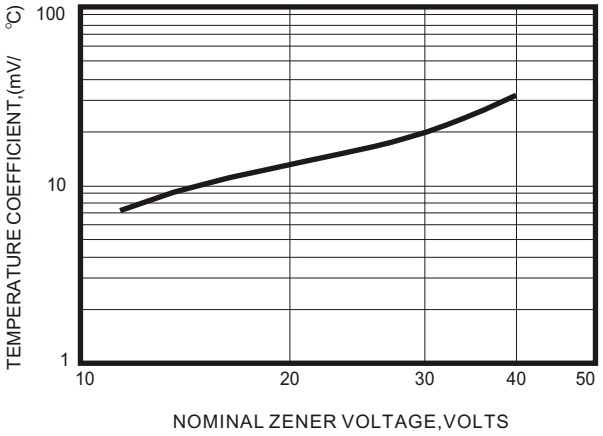


Fig.3 EFFECT OF ZENER VOLTAGE ON ZENER IMPEDANCE

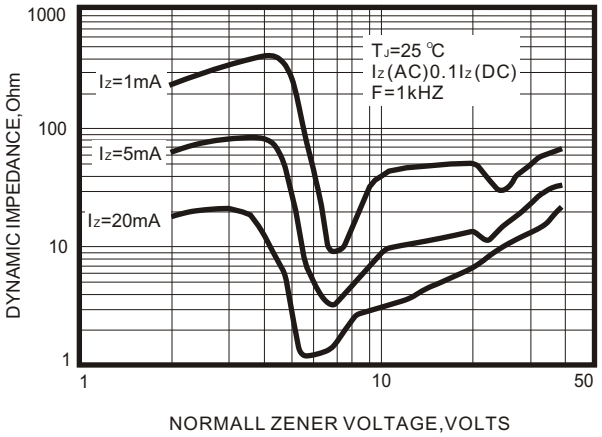


Fig.4 TYPICAL FORWARD VOLTAGE

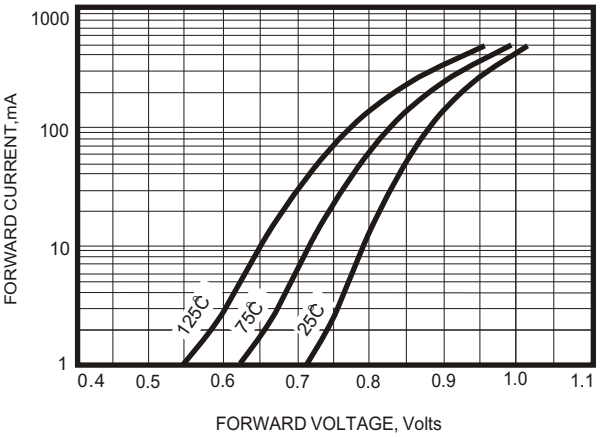


Fig.5 TYPICAL LEAKAGE CURRENT

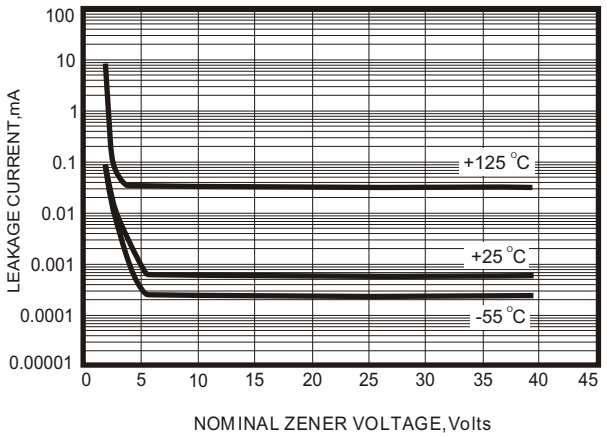
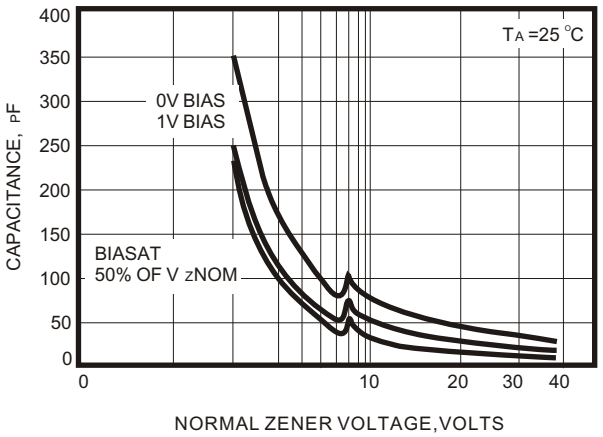


Fig.6 TYPICAL CAPACITANCE



RATING AND CHARACTERISTIC CURVES (CDZ15WT2 Thru CDZ15WT39)

Fig.7 ZENER VOLTAGE VERSUS ZENER CURRENT

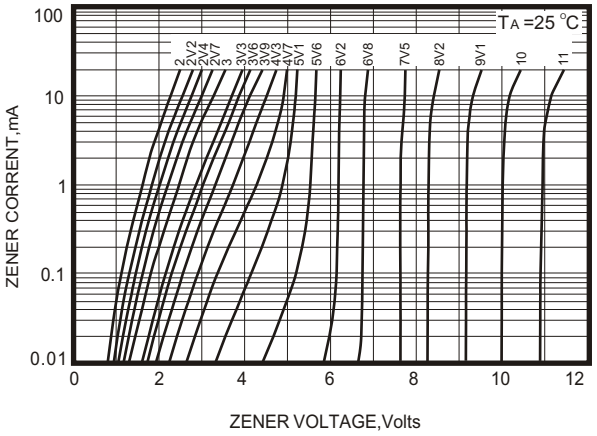


Fig.8 ZENER VOL TAGE VERSUS ZENER CURRENT

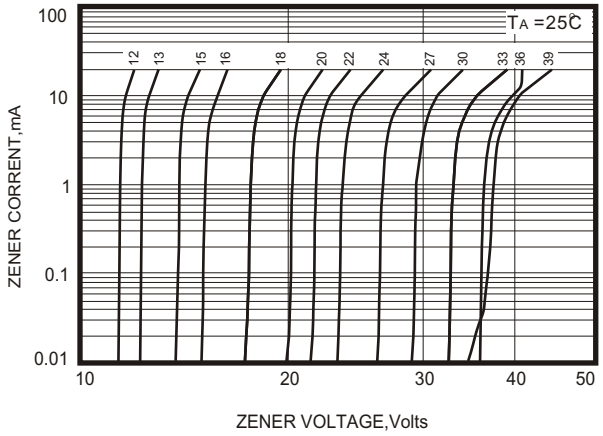


Fig.9 STEADY STATE POWER DERATING