SMD Zener Diode

COMCHIP
SMD DIODE SPECIALIST

CZRU52C2 Thru CZRU52C39

Voltage 2 to 39 Volts
Power 150 mWatts

Features

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

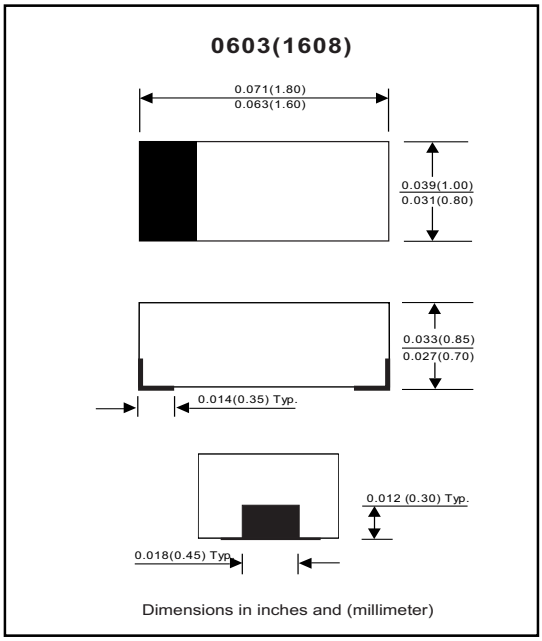
Mechanical data

Case: 0603(1608)Standard package
Molded plastic.

Terminals: Gold plated, solderable per MIL-STD-750,method 2026.

Polarity: Indicated by cathode band.

Weight: 0.003 gram(approx.).



Dimensions in inches and (millimeter)

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)
CZRU52C2	Z0	1.90	2.10	5	100	5	600	1	100	1
CZRU52C2V2	Z1	2.09	2.31	5	100	5	600	1	100	1
CZRU52C2V4	Z2	2.28	2.52	5	85	5	600	1	100	1
CZRU52C2V7	Z3	2.57	2.84	5	83	5	500	1	75	1
CZRU52C3	Z4	2.85	3.15	5	95	5	500	1	50	1
CZRU52C3V3	Z5	3.14	3.47	5	95	5	500	1	25	1
CZRU52C3V6	Z6	3.42	3.78	5	95	5	500	1	15	1
CZRU52C3V9	Z7	3.71	4.10	5	95	5	500	1	10	1
CZRU52C4V3	Z8	4.09	4.52	5	95	5	500	1	5	1
CZRU52C4V7	Z9	4.47	4.94	5	78	5	500	1	5	2
CZRU52C5V1	ZA	4.85	5.36	5	60	5	480	1	0.1	0.8
CZRU52C5V6	ZB	5.32	5.88	5	40	5	400	1	0.1	1
CZRU52C6V2	ZC	5.89	6.51	5	10	5	200	1	0.1	2
CZRU52C6V8	ZE	6.46	7.14	5	8	5	150	1	0.1	3
CZRU52C7V5	ZF	7.13	7.88	5	7	5	50	1	0.1	5
CZRU52C8V2	ZG	7.79	8.61	5	7	5	50	1	0.1	6
CZRU52C9V1	ZH	8.65	9.56	5	10	5	50	1	0.1	7
CZRU52C10	ZJ	9.50	10.50	5	15	5	70	1	0.1	7.5
CZRU52C11	ZK	10.45	11.55	5	20	5	70	1	0.1	8.5
CZRU52C12	ZM	11.40	12.60	5	20	5	90	1	0.1	9
CZRU52C13	ZN	12.35	13.65	5	25	5	110	1	0.1	10
CZRU52C15	ZP	14.25	15.75	5	30	5	110	1	0.1	11
CZRU52C16	ZQ	15.20	16.80	5	40	5	170	1	0.1	12
CZRU52C18	ZR	17.10	18.90	5	50	5	170	1	0.1	14
CZRU52C20	ZS	19.00	21.00	5	50	5	220	1	0.1	15
CZRU52C22	ZT	20.90	23.10	5	55	5	220	1	0.1	17
CZRU52C24	ZU	22.80	25.20	5	80	5	220	1	0.1	18
CZRU52C27	ZV	25.65	28.35	5	80	5	250	1	0.1	20
CZRU52C30	ZW	28.50	31.50	5	80	5	250	1	0.1	23
CZRU52C33	ZX	31.35	34.65	5	80	5	250	1	0.1	25
CZRU52C36	ZY	34.20	37.80	5	90	5	250	1	0.1	27
CZRU52C39	ZZ	37.05	40.95	5	90	5	300	1	0.1	29

RATING AND CHARACTERISTIC CURVES (CZRU52C2 Thru CZRU52C39)

Fig.1 TEMPERATURE COEFFICENTS

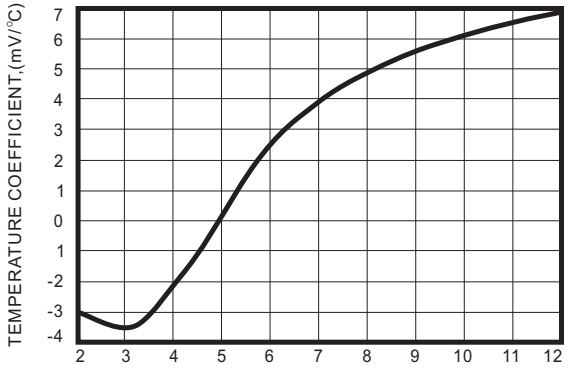


Fig.2 TEMPERATURE COEFFICENTS

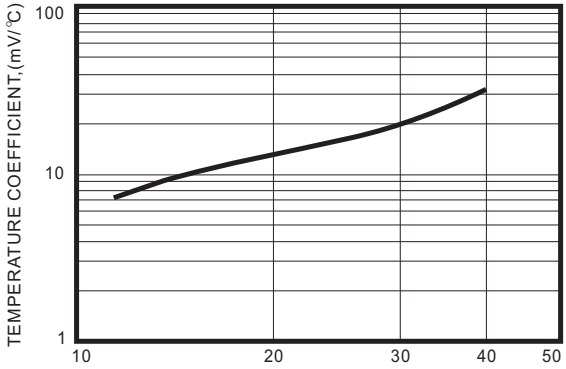


Fig.3 EFFECT OF ZENER VOLTAGE ON ZENER IMPEDANCE

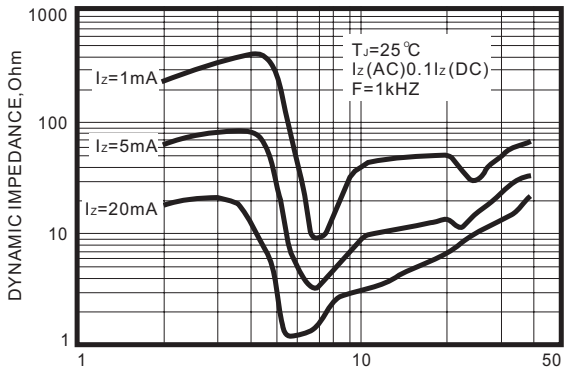


Fig.4 TYPICAL FORWARD VOLTAGE

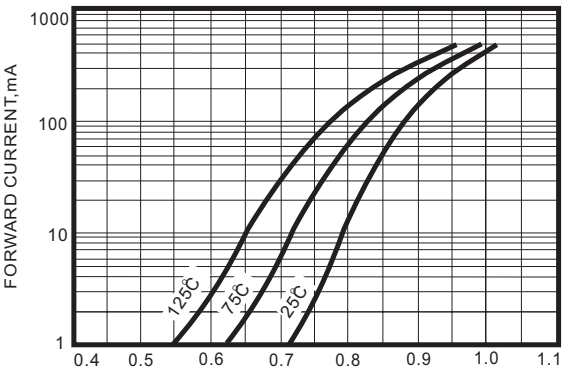


Fig.5 TYPICAL LEAKAGE CURRENT

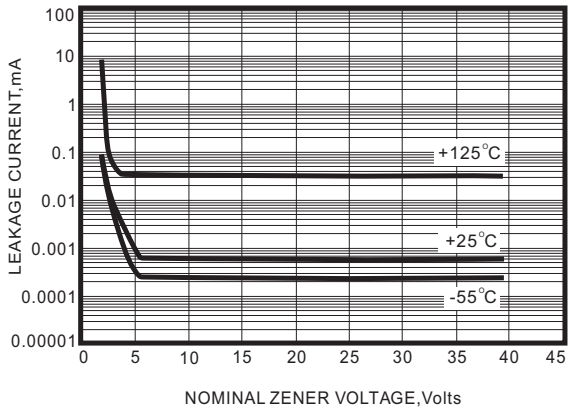
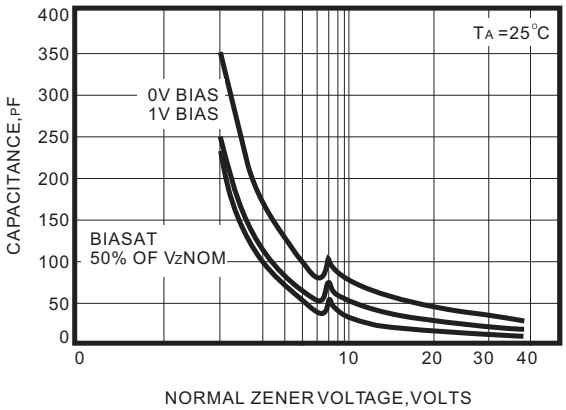


Fig.6 TYPICAL CAPACITANCE



RATING AND CHARACTERISTIC CURVES (CZRU52C2 Thru CZRU52C39)

Fig.7 ZENER VOLTAGE VERSUS ZENER CURRENT

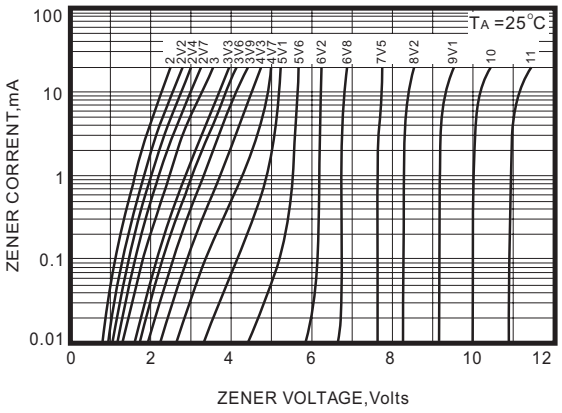


Fig.8 ZENER VOLTAGE VERSUS ZENER CURRENT

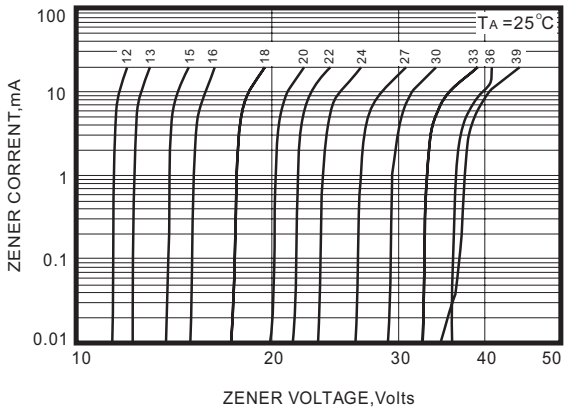


Fig.9 STEADY STATE POWER DERATING