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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

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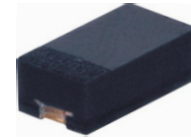
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CZRU52C2-HF Thru CZRU52C39-HF

Voltage 2 to 39 Volts
 Power 150 mWatts
 RoHS Device
 Halogen Free

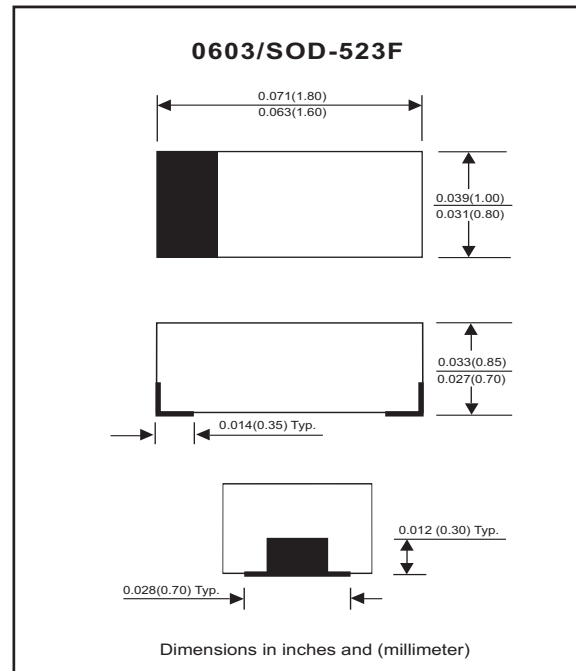


Features

- 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/SOD-523F 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 $I_F = 10 \text{ mA}$	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
Peak ESD voltage capability (IEC 61000-4-2)	V_{PV}	8	kV
Operating Junction and Storage Temperature Range	T_J	-55 to +125	$^\circ\text{C}$

Electrical Characteristics(Ta = 25C) °

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

RATING AND CHARACTERISTIC CURVES (CZRU52C2-HF Thru CZRU52C39-HF)

Fig.1 TEMPERATURE COEFFICIENTS

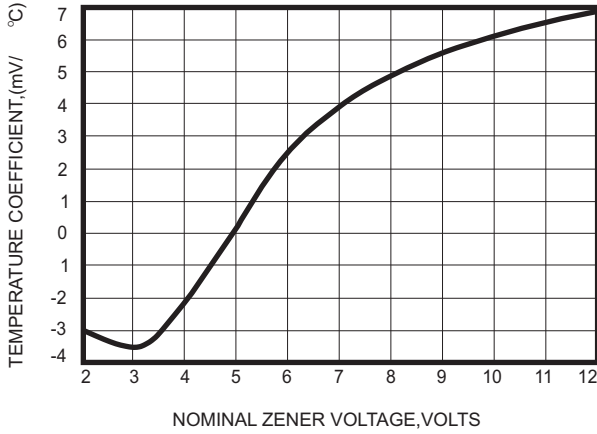


Fig.2 TEMPERATURE COEFFICIENTS

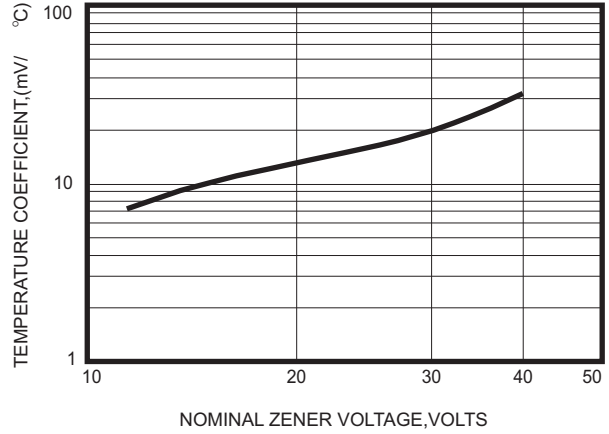


Fig.3 EFFECT OF ZENER VOLTAGE ON ZENER IMPEDANCE

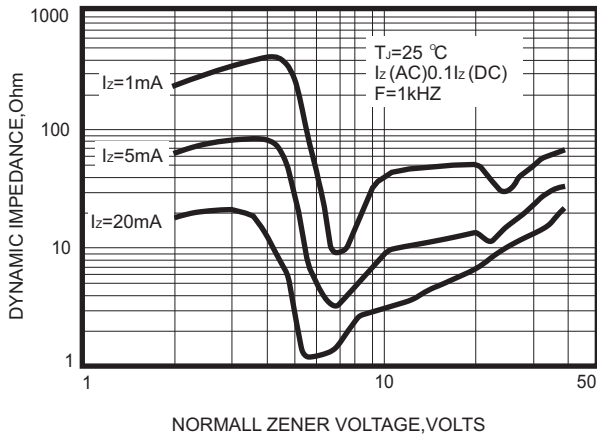


Fig.4 TYPICAL FORWARD VOLTAGE

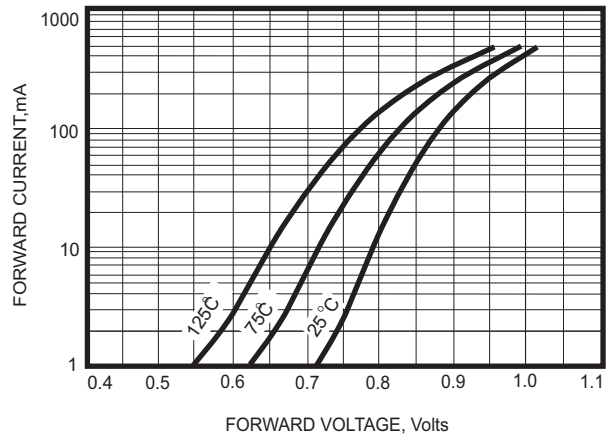


Fig.5 TYPICAL LEAKAGE CURRENT

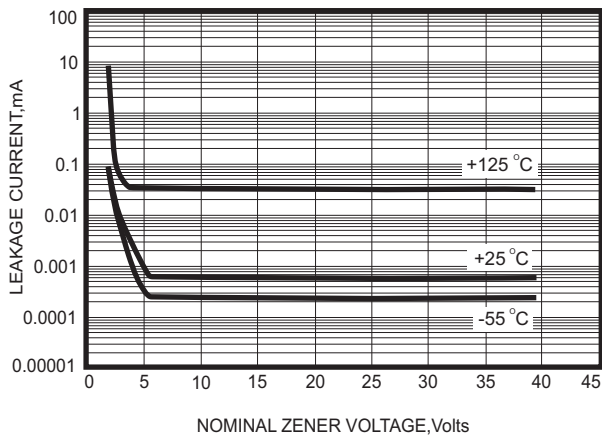
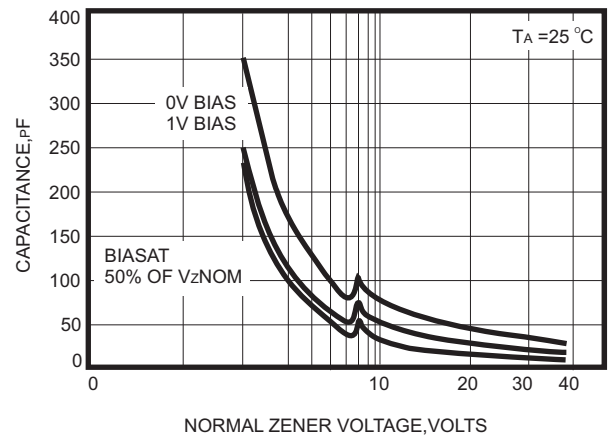


Fig.6 TYPICAL CAPACITANCE



RATING AND CHARACTERISTIC CURVES (CZRU52C2-HF Thru CZRU52C39-HF)

Fig.7 ZENER VOLTAGE VERSUS ZENER CURRENT

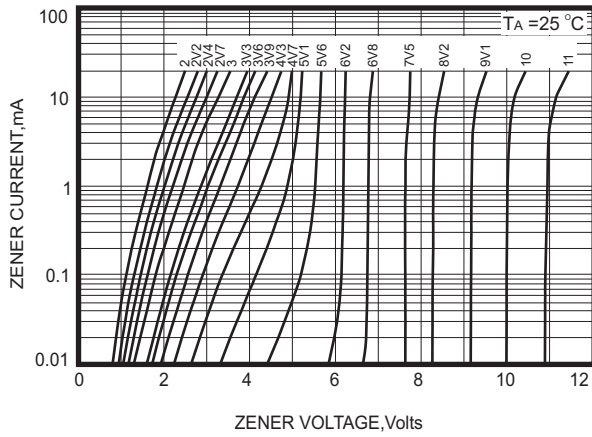


Fig.8 ZENER VOLTAGE VERSUS ZENER CURRENT

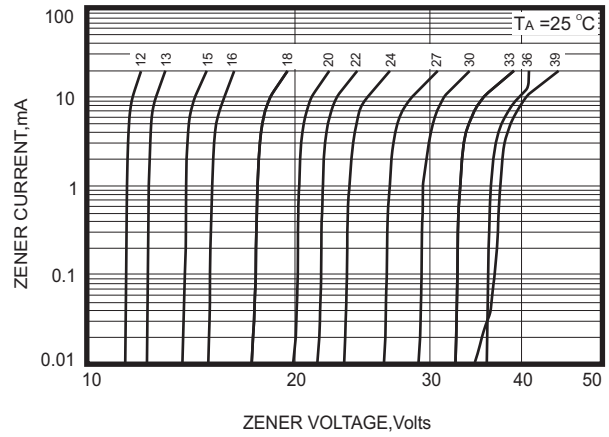
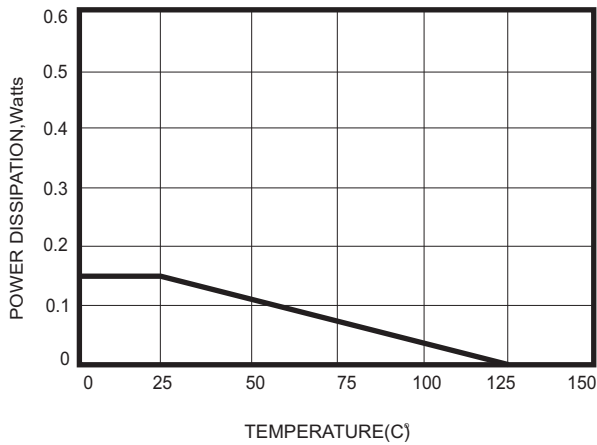
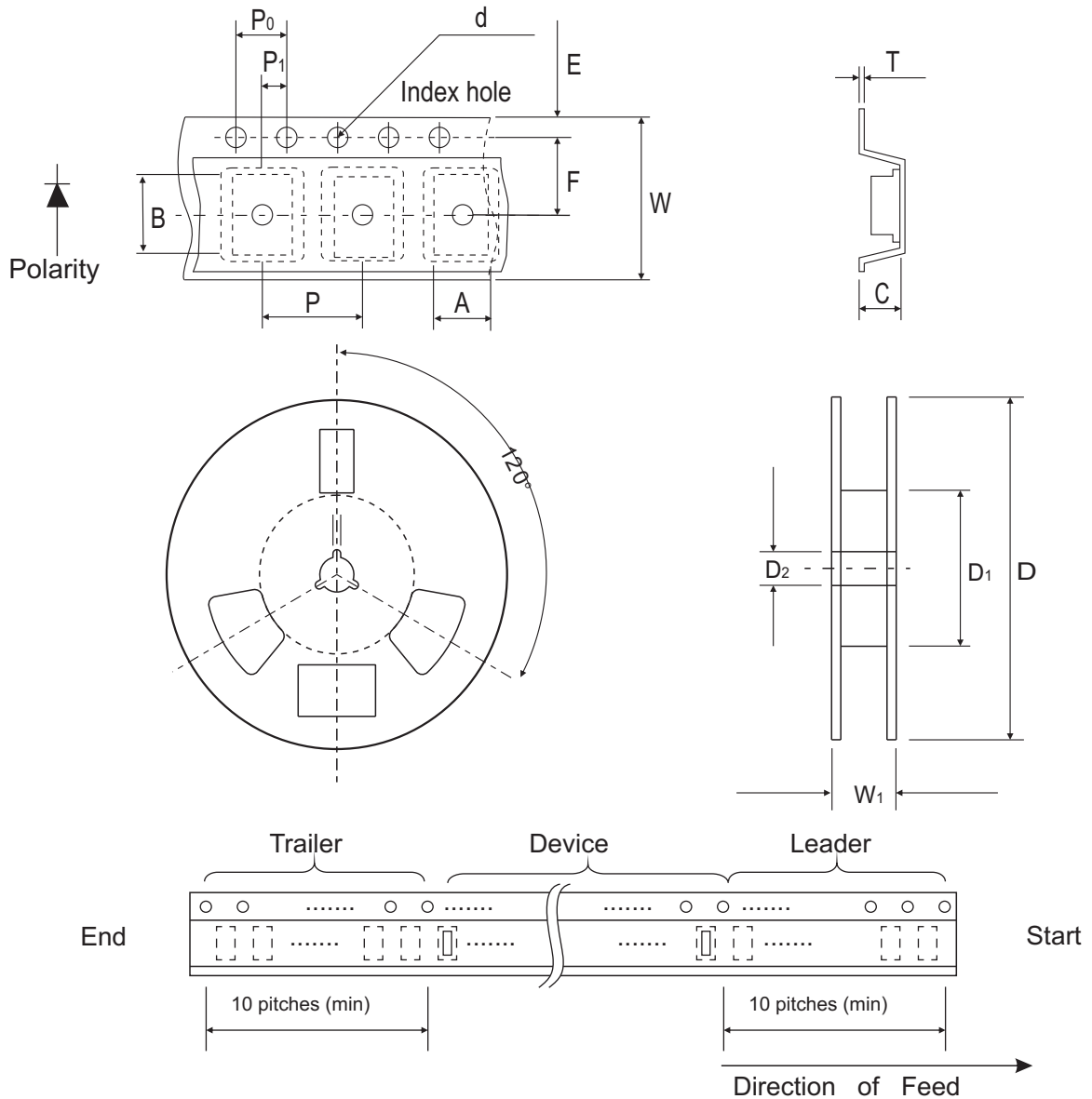


Fig.9 STEADY STATE POWER DERATING



Reel Taping Specification

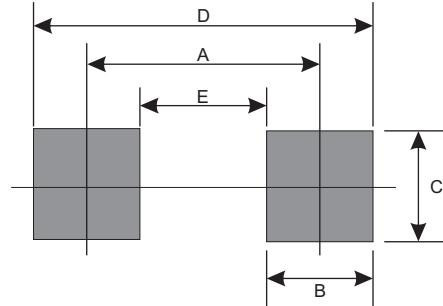


0603 (SOD-523F)	SYMBOL	A	B	C	d	D	D ₁	D ₂
	(mm)	1.00 ± 0.10	1.85 ± 0.10	1.00 ± 0.10	1.55 ± 0.05	178 ± 1	60.0 MIN.	13.0 ± 0.20
	(inch)	0.039 ± 0.004	0.073 ± 0.004	0.039 ± 0.004	0.061 ± 0.002	7.008 ± 0.04	2.362 MIN.	0.512 ± 0.008

0603 (SOD-523F)	SYMBOL	E	F	P	P ₀	P ₁	T	W	W ₁
	(mm)	1.75 ± 0.10	3.50 ± 0.05	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.05	0.23 ± 0.05	8.00 ± 0.20	13.5 MAX.
	(inch)	0.069 ± 0.004	0.138 ± 0.002	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.009 ± 0.002	0.315 ± 0.008	0.531 MAX.

Suggested PAD Layout

SIZE	0603/SOD-523F	
	(mm)	(inch)
A	1.70	0.067
B	0.60	0.024
C	0.80	0.031
D	2.30	0.091
E	1.10	0.043



Standard Package

Case Type	Qty per Reel	Reel Size
	(Pcs)	(inch)
0603/SOD-523F	4000	7