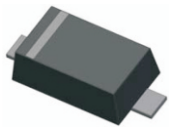
CZRM5221B-HF Thru CZRM5263B-HF

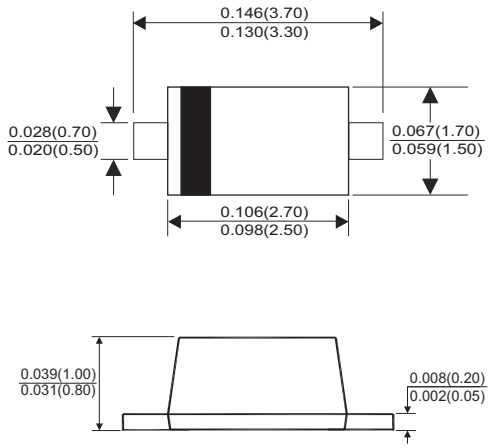
Voltage: 2.4 to 56 Volts
Power: 500 mWatts
RoHS Device
Halogen Free



Features

- Surface Device Type Mounting.
- Moisture Sensitivity Level 1.
- Clip bonding construction, good thermal capability.
- Ideally suited for automated assembly processes.

SOD-123 Flat Lead



Dimensions in inches and (millimeter)

Mechanical data

- Case: SOD-123 Flat Lead,Molded plastic.
- Terminals: Solder Plated,solderable per MIL-STD-750,method 2026.
- Polarity: Cathode band.

Circuit Diagram



Maximum Ratings (@Ta=25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Power Dissipation	P_D	500	mW
Storage Temperature Range	T_{STG}	-65 to +150	°C
Operating and Storage Temperature Range	T_{OPR}	-65 to +150	°C

Notes: 1. These ratings are limiting values above which the serviceability of the diode may be impaired.
2. Company reserves the right to improve product design , functions and reliability without notice.

Electrical Characteristics (Ta = 25°C)

Part Number	V_Z @ I_{ZT} (Volts)			Z_{ZT} @ I_{ZT} (Ohm)		Z_{ZK} @ I_{ZK} (Ohm)		I_R @ V_R (μA)		Marking Code
	Min	Nom	Max	Max	I_{ZT}(mA)	Max	I_{ZK}(mA)	Max	V_R(V)	
CZRM5221B-HF	2.28	2.4	2.52	30	20	1200	0.25	100	1.0	Z2V4
CZRM5222B-HF	2.38	2.5	2.63	30	20	1250	0.25	100	1.0	Z2V5
CZRM5223B-HF	2.57	2.7	2.84	30	20	1300	0.25	75	1.0	Z2V7
CZRM5224B-HF	2.66	2.8	2.94	30	20	1400	0.25	75	1.0	Z2V8
CZRM5225B-HF	2.85	3.0	3.15	29	20	1600	0.25	50	1.0	Z3V0
CZRM5226B-HF	3.14	3.3	3.47	28	20	1600	0.25	25	1.0	Z3V3
CZRM5227B-HF	3.42	3.6	3.78	24	20	1700	0.25	15	1.0	Z3V6
CZRM5228B-HF	3.71	3.9	4.10	23	20	1900	0.25	10	1.0	Z3V9
CZRM5229B-HF	4.09	4.3	4.52	22	20	2000	0.25	5	1.0	Z4V3
CZRM5230B-HF	4.47	4.7	4.94	19	20	1900	0.25	5	2.0	Z4V7
CZRM5231B-HF	4.85	5.1	5.36	17	20	1600	0.25	5	2.0	Z5V1
CZRM5232B-HF	5.32	5.6	5.88	11	20	1600	0.25	5	3.0	Z5V6
CZRM5233B-HF	5.70	6.0	6.30	7	20	1600	0.25	5	3.5	Z6V0
CZRM5234B-HF	5.89	6.2	6.51	7	20	1000	0.25	5	4.0	Z6V2
CZRM5235B-HF	6.46	6.8	7.14	5	20	750	0.25	3	5.0	Z6V8
CZRM5236B-HF	7.13	7.5	7.88	6	20	500	0.25	3	6.0	Z7V5
CZRM5237B-HF	7.79	8.2	8.61	8	20	500	0.25	3	6.5	Z8V2
CZRM5238B-HF	8.27	8.7	9.14	8	20	600	0.25	3	6.5	Z8V7
CZRM5239B-HF	8.65	9.1	9.56	10	20	600	0.25	3	7.0	Z9V1
CZRM5240B-HF	9.5	10	10.50	17	20	600	0.25	3	8.0	Z10V
CZRM5241B-HF	10.45	11	11.55	22	20	600	0.25	2	8.4	Z11V
CZRM5242B-HF	11.40	12	12.60	30	20	600	0.25	1	9.1	Z12V
CZRM5243B-HF	12.35	13	13.65	13	9.5	600	0.25	0.5	9.9	Z13V
CZRM5244B-HF	13.30	14	14.70	15	9.0	600	0.25	0.1	10	Z14V
CZRM5245B-HF	14.25	15	15.75	16	8.5	600	0.25	0.1	11	Z15V
CZRM5246B-HF	15.20	16	16.80	17	7.8	600	0.25	0.1	12	Z16V
CZRM5247B-HF	16.15	17	17.85	19	7.4	600	0.25	0.1	13	Z17V
CZRM5248B-HF	17.10	18	18.90	21	7.0	600	0.25	0.1	14	Z18V
CZRM5249B-HF	18.05	19	19.95	23	6.6	600	0.25	0.1	14	Z19V
CZRM5250B-HF	19.00	20	21.00	25	6.2	600	0.25	0.1	15	Z20V

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Electrical Characteristics (Ta = 25°C)

Part Number	V_Z @ I_{ZT} (Volts)			Z_{ZT} @ I_{ZT} (Ohm)		Z_{ZK} @ I_{ZK} (Ohm)		I_R @ V_R (μA)		Marking Code
	Min	Nom	Max	Max	I_{ZT}(mA)	Max	I_{ZK}(mA)	Max	V_R(V)	
CZRM5251B-HF	20.90	22	23.10	29	5.6	600	0.25	0.1	17	Z22V
CZRM5252B-HF	22.80	24	25.20	33	5.2	600	0.25	0.1	18	Z24V
CZRM5253B-HF	23.75	25	26.25	35	5.0	600	0.25	0.1	19	Z25V
CZRM5254B-HF	25.65	27	28.35	41	4.6	600	0.25	0.1	21	Z27V
CZRM5255B-HF	26.60	28	29.40	44	4.5	600	0.25	0.1	21	Z28V
CZRM5256B-HF	28.50	30	31.50	49	4.2	600	0.25	0.1	23	Z30V
CZRM5257B-HF	31.35	33	34.65	58	3.8	700	0.25	0.1	25	Z33V
CZRM5258B-HF	34.20	36	37.80	70	3.4	700	0.25	0.1	27	Z36V
CZRM5259B-HF	37.05	39	40.95	80	3.2	800	0.25	0.1	30	Z39V
CZRM5260B-HF	40.85	43	45.15	93	3.0	900	0.25	0.1	33	Z43V
CZRM5261B-HF	44.65	47	49.35	105	2.7	1000	0.25	0.1	36	Z47V
CZRM5262B-HF	48.45	51	53.55	125	2.5	1100	0.25	0.1	39	Z51V
CZRM5263B-HF	53.20	56	58.80	150	2.2	1300	0.25	0.1	43	Z56V

Notes: 1. The zener voltage (V_Z) is tested under pulse condition of 15mS.
The measured V_Z is guaranteed to be within specification with device junction in thermal equilibrium.

2. The device numbers listed have a standard tolerance on the nominal zener voltage of ±5%.

3. The zener impedance is derived from the 60-cycle ac voltage, which results when an ac current having an rms value equal to 10% of the dc zener current (I_{ZT} or I_{ZK}) is superimposed to I_{ZT} or I_{ZK}.

4. Company reserves the right to improve product design , functions and reliability without notice.

RATING AND CHARACTERISTIC CURVES (CZRM5221B-HF Thru. CZRM5263B-HF)

Fig.1 - Typical Forward Voltage

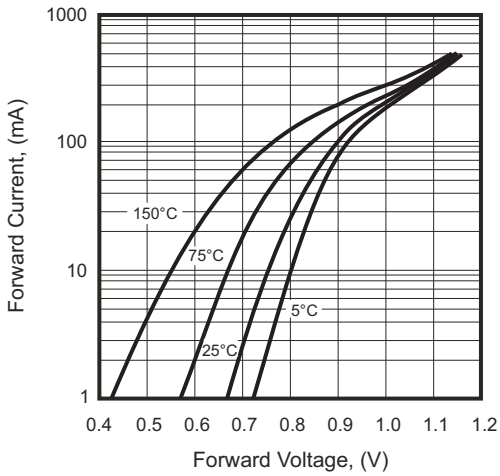


Fig.2 - Effect Of Zener Voltage On Zener Impedance

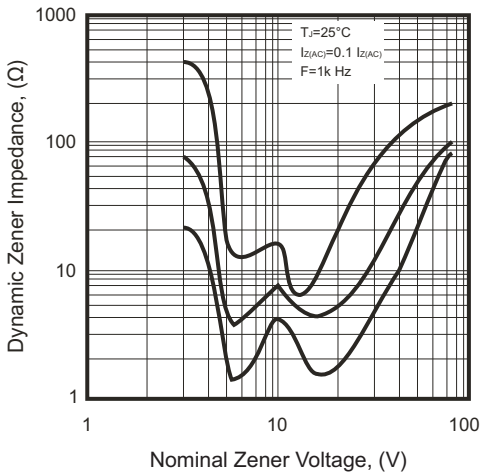


Fig.3 - Power Dissipation VS. Ambient Temp.

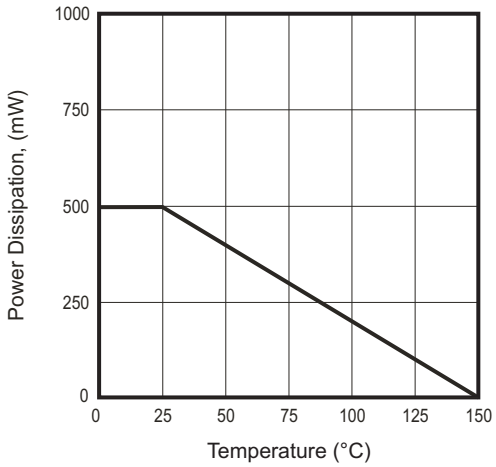
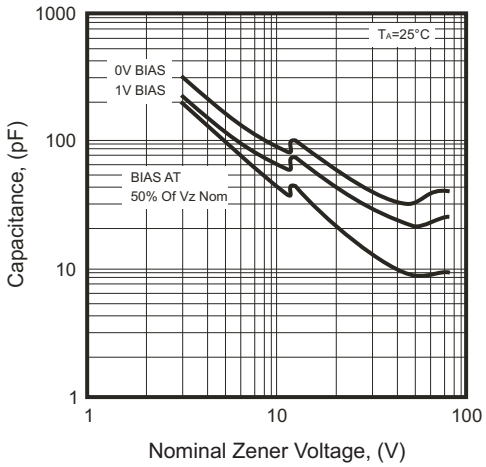


Fig.4 - Typical Capacitance



RATING AND CHARACTERISTIC CURVES (CZRM5221B-HF Thru. CZRM5263B-HF)

Fig.5 - Zener Breakdown Characteristics

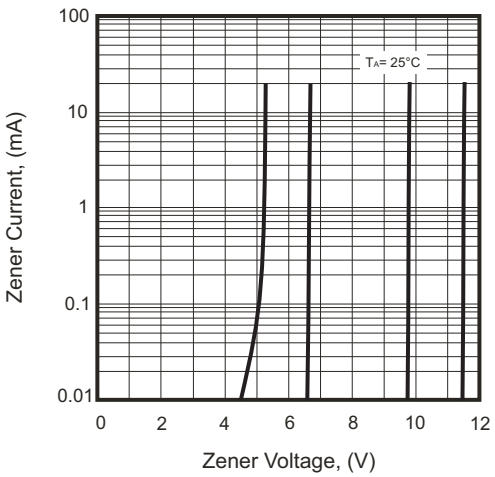


Fig.6 - Zener Breakdown Characteristics

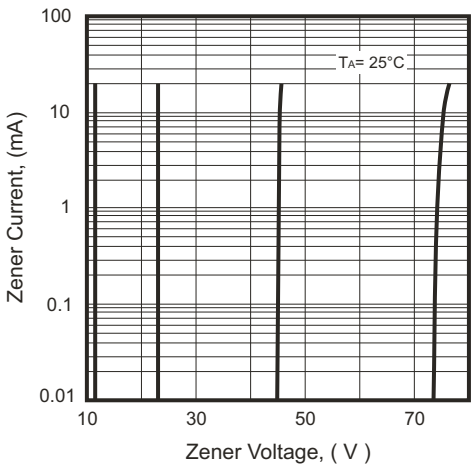
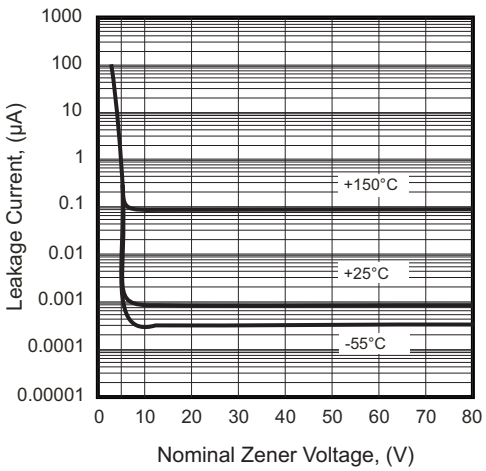
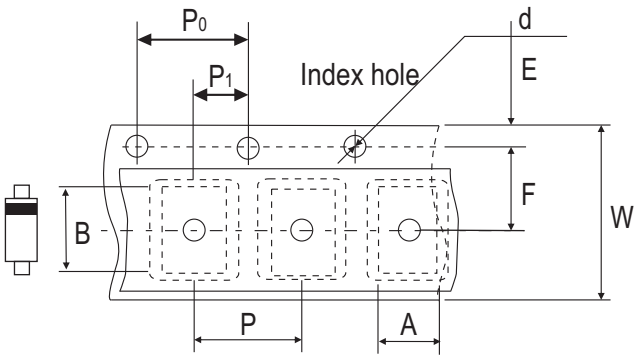
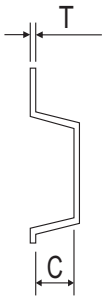


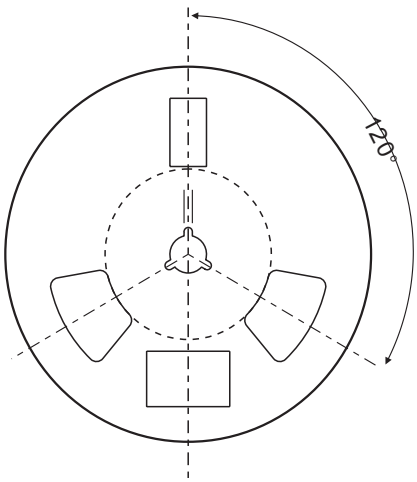
Fig.7 - Typical Leakage Current

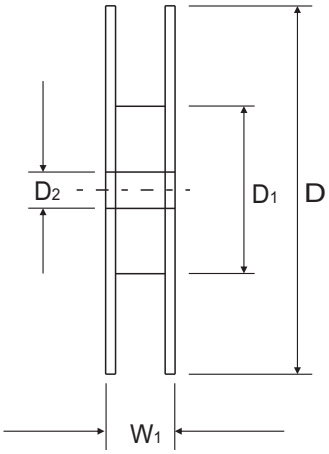


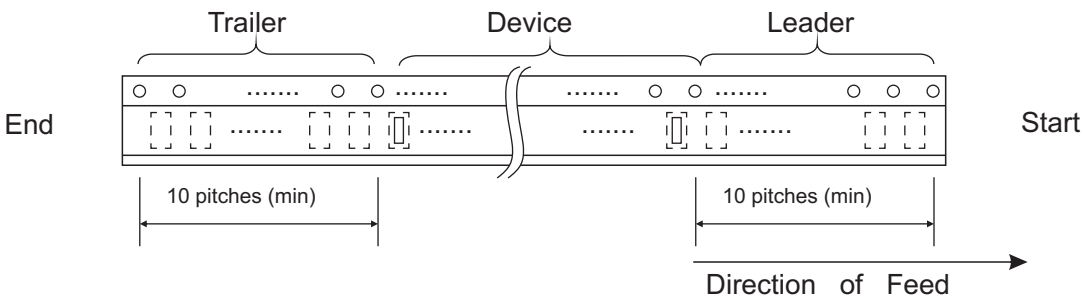
Reel Taping Specification











	SYMBOL	A	B	C	d	D	D_1	D_2
SOD-123FL	(mm)	1.85 ± 0.10	3.94 ± 0.10	1.58 ± 0.10	1.55 + 0.10	178 MAX.	50.0 MIN.	13.0 ± 0.20
	(inch)	0.073 ± 0.004	0.155 ± 0.004	0.062 ± 0.004	0.061 + 0.004	7.008 MAX.	1.969 MIN.	0.512 ± 0.008

	SYMBOL	E	F	P	P_0	P_1	T	W	W_1
SOD-123FL	(mm)	1.75 ± 0.10	3.50 ± 0.05	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	0.40 Max.	8.00 ± 0.30	14.4 MAX.
	(inch)	0.069± 0.004	0.138± 0.002	0.157± 0.004	0.157± 0.004	0.079± 0.004	0.016 Max.	0.315± 0.012	0.567 MAX.

Company reserves the right to improve product design , functions and reliability without notice.

Marking Code

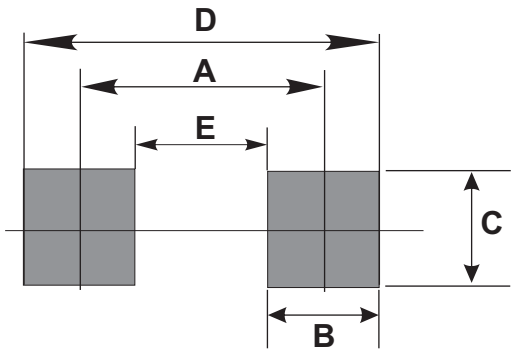
Part Number	Marking Code
CZRM5221B ~ 5263B-HF	XXXX



Product type marking code (see page.2~3)

Suggested PAD Layout

SIZE	SOD-123FL	
	(mm)	(inch)
A	2.90	0.132
B	1.10	0.031
C	1.10	0.039
D	4.00	0.163
E	1.60	0.100



Standard Packaging

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