

SMD Zener Diode

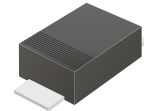
CZRMF4734A-HF Thru. CZRMF1330A-HF

Zener Voltage: 5.6V to 330V

DC Power: 1 W

RoHS Device

Halogen Free

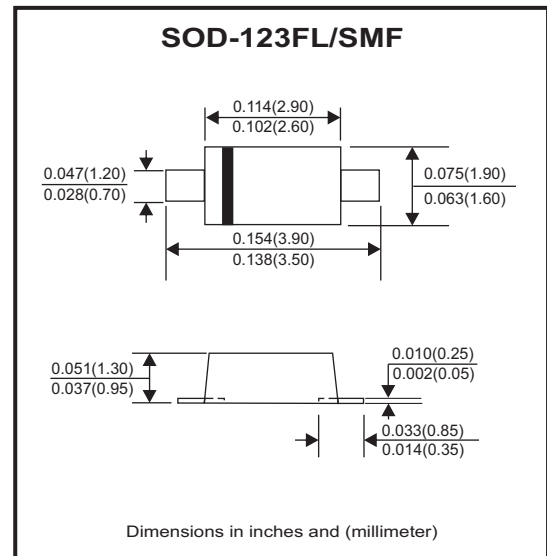


Features

- Glass passivated chip.
- Low leakage current.
- Built-in strain relief.
- Low inductance.
- High peak reverse power dissipation.
- For use in stabilizing and clipping with high power rating.

Mechanical data

- Case: Molded plastic.
- Epoxy: UL 94V-0 rate flame retardant.
- Lead: Solderable per MIL-STD-750, method 2026.
- Polarity: Color band denotes cathode end except bipolar.
- Mounting position: Any.
- Weight: 0.016 grams(approx.).



Circuit diagram



Maximum Rating (at $T_A=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Conditions	Symbol	Value	Unit
DC power dissipation	$T_L = 50^{\circ}\text{C}$	P_D	1	W
Forward voltage	$I_F = 200\text{mA}$	V_F	1.2	V
Thermal resistance	Junction to ambient air (Note)	$R_{\theta JA}$	170	K/W
Junction temperature range		T_J	-55 to +150	$^{\circ}\text{C}$
Storage temperature range		T_{STG}	-55 to +175	$^{\circ}\text{C}$

Note:

Valid provided that leads are kept at ambient temperature at a distance of 10mm from case.

RATING AND CHARACTERISTIC CURVES (CZRMF4734A-HF Thru. CZRMF1300A-HF)

Fig.1 - Power Temperature Derating Curve

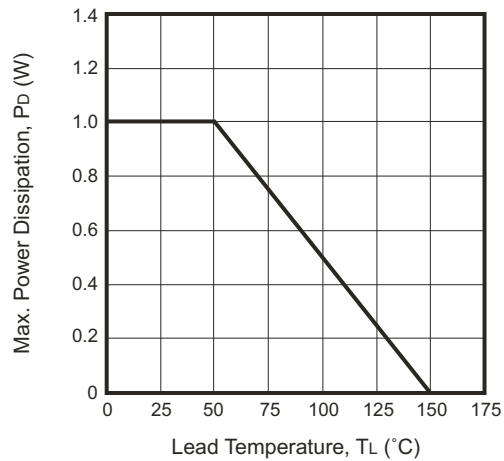


Fig.2 - Temperature Coefficients v.s. Zener Voltage

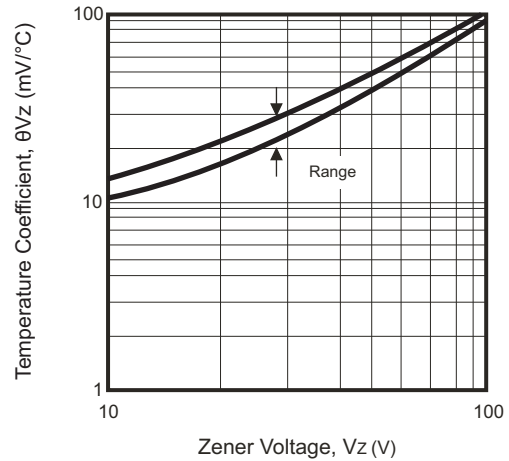


Fig.3 - Typical Thermal Resistance v.s. Lead Length

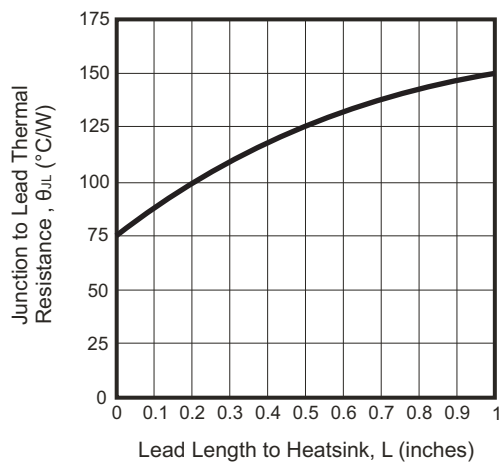
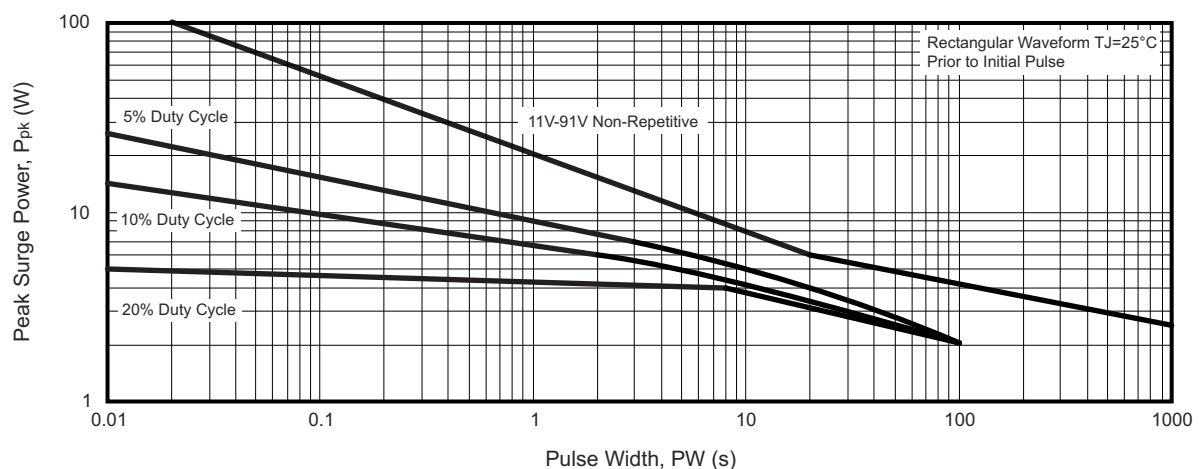


Fig.4 - Maximum Surge Power



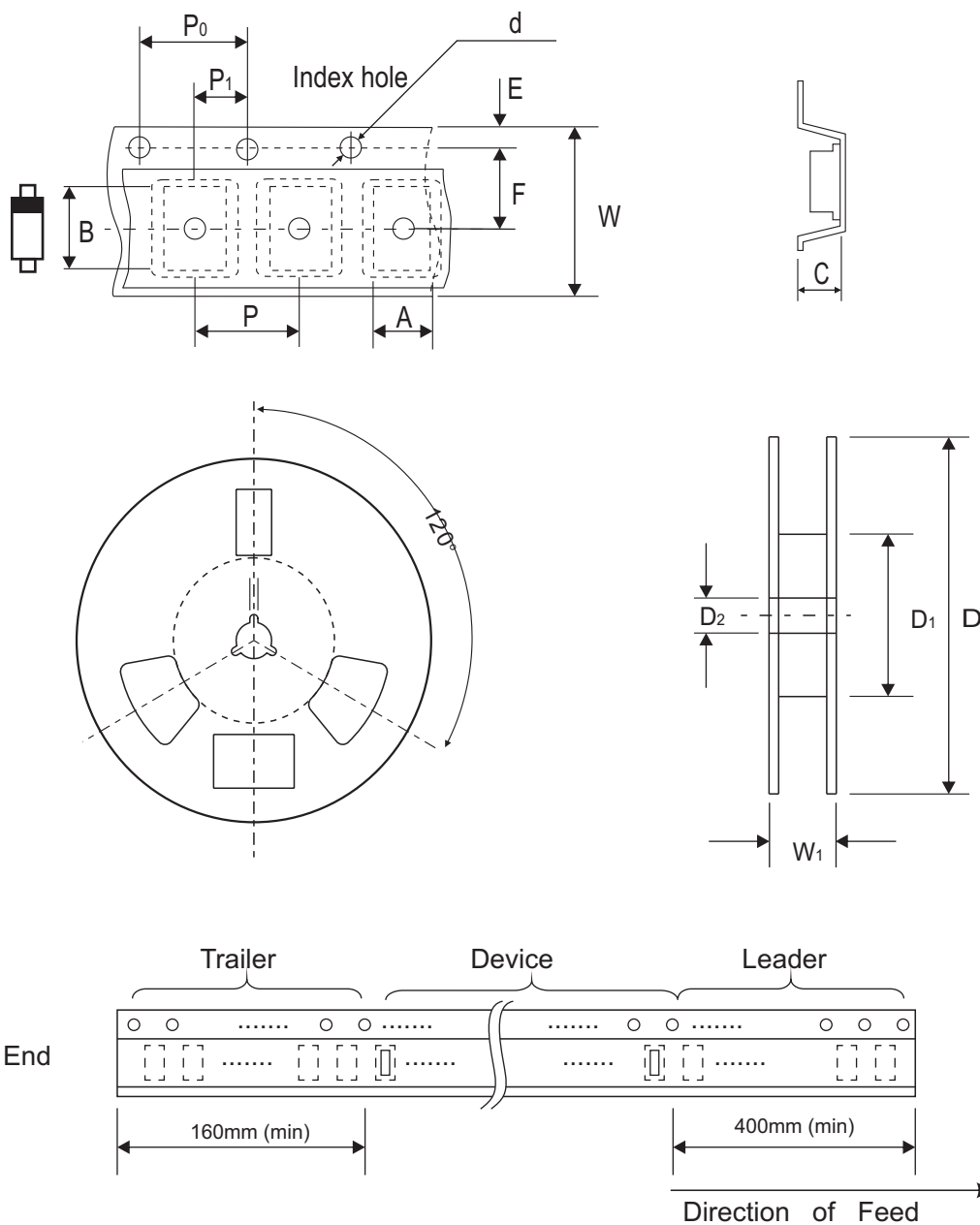
Electrical Characteristics (at TA=25°C unless otherwise specified)

Part No	Nominal Zener Voltage		Maximum Zener Impedance			Maximum Reverse Leakage Current		Maximum DC Zener Current	Maximum Surge Current	Marking Code
	Vz@IzT(V)	IzT(mA)	ZzT@IzT(Ω)	Zzk@Izk(Ω)	Izk(mA)	Ir(μA)	VR(V)	Izm(mA)	IRM(mApk)	
CZRMF4734A-HF	5.6	45.0	5.0	600	1.00	10.0	2.0	161.0	805	34A
CZRMF4735A-HF	6.2	41.0	2.0	700	1.00	10.0	3.0	146.0	730	35A
CZRMF4736A-HF	6.8	37.0	3.5	700	1.00	5.0	4.0	133.0	660	36A
CZRMF4737A-HF	7.5	34.0	4.0	700	0.50	5.0	5.0	121.0	605	37A
CZRMF4738A-HF	8.2	31.0	4.5	700	0.50	5.0	6.0	110.0	550	38A
CZRMF4739A-HF	9.1	28.0	5.0	700	0.50	0.5	7.0	100.0	500	39A
CZRMF4740A-HF	10.0	25.0	7.0	700	0.25	0.5	7.6	91.0	454	40A
CZRMF4741A-HF	11.0	23.0	8.0	700	0.25	0.1	8.4	83.0	414	41A
CZRMF4742A-HF	12.0	21.0	9.0	700	0.25	0.1	9.1	76.0	380	42A
CZRMF4743A-HF	13.0	19.0	10.0	700	0.25	0.1	9.9	69.0	344	43A
CZRMF4744A-HF	15.0	17.0	14.0	700	0.25	0.1	11.4	61.0	305	44A
CZRMF4745A-HF	16.0	15.5	16.0	700	0.25	0.1	12.2	57.0	285	45A
CZRMF4746A-HF	18.0	14.0	20.0	750	0.25	0.1	13.7	50.0	250	46A
CZRMF4747A-HF	20.0	12.5	22.0	750	0.25	0.1	15.2	45.0	225	47A
CZRMF4748A-HF	22.0	11.5	23.0	750	0.25	0.1	16.7	41.0	205	48A
CZRMF4749A-HF	24.0	10.5	25.0	750	0.25	0.1	18.2	38.0	190	49A
CZRMF4750A-HF	27.0	9.5	35.0	750	0.25	0.1	20.6	34.0	170	50A
CZRMF4751A-HF	30.0	8.5	40.0	1000	0.25	0.1	22.8	30.0	150	51A
CZRMF4752A-HF	33.0	7.5	45.0	1000	0.25	0.1	25.1	27.0	135	52A
CZRMF4753A-HF	36.0	7.0	50.0	1000	0.25	0.1	27.4	25.0	125	53A
CZRMF4754A-HF	39.0	6.5	60.0	1000	0.25	0.1	29.7	23.0	115	54A
CZRMF4755A-HF	43.0	6.0	70.0	1500	0.25	0.1	32.7	22.0	110	55A
CZRMF4756A-HF	47.0	5.5	80.0	1500	0.25	0.1	35.8	19.0	95	56A
CZRMF4757A-HF	51.0	5.0	95.0	1500	0.25	0.1	38.8	18.0	90	57A
CZRMF4758A-HF	56.0	4.5	110.0	2000	0.25	0.1	42.6	16.0	80	58A
CZRMF4759A-HF	62.0	4.0	125.0	2000	0.25	0.1	47.1	14.0	70	59A
CZRMF4760A-HF	68.0	3.7	150.0	2000	0.25	0.1	51.7	13.0	65	60A
CZRMF4761A-HF	75.0	3.3	175.0	2000	0.25	0.1	56.0	12.0	60	61A
CZRMF4762A-HF	82.0	3.0	200.0	3000	0.25	0.1	62.2	11.0	55	62A
CZRMF4763A-HF	91.0	2.8	250.0	3000	0.25	0.1	69.2	10.0	50	63A
CZRMF4764A-HF	100.0	2.5	350.0	3000	0.25	0.1	76.0	9.0	45	64A
CZRMF1110A-HF	110.0	2.3	450.0	4000	0.25	0.1	83.6	8.6	40	11Z
CZRMF1120A-HF	120.0	2.0	550.0	4500	0.25	0.1	91.2	7.8	37	12Z
CZRMF1130A-HF	130.0	1.9	700.0	5000	0.25	0.1	98.8	7.0	34	13Z
CZRMF1150A-HF	150.0	1.7	1000.0	6000	0.25	0.1	114.0	6.4	30	15Z
CZRMF1160A-HF	160.0	1.6	1100.0	6500	0.25	0.1	121.6	5.8	28	16Z
CZRMF1180A-HF	180.0	1.4	1200.0	7000	0.25	0.1	136.8	5.2	25	18Z
CZRMF1200A-HF	200.0	1.2	1900.0	9990	0.25	0.1	152.0	4.7	22	20Z
CZRMF1220A-HF	220.0	1.0	1600.0	8000	0.25	0.1	167.2	4.0	20	22Z
CZRMF1240A-HF	240.0	0.9	1800.0	8500	0.25	0.1	182.4	3.8	19	24Z
CZRMF1250A-HF	250.0	0.9	2000.0	9000	0.25	0.1	190.0	3.6	18	25Z
CZRMF1270A-HF	270.0	0.8	2100.0	9000	0.25	0.1	205.0	3.3	16	27Z
CZRMF1300A-HF	300.0	0.8	2300.0	9500	0.25	0.1	228.0	3.0	15	30Z
CZRMF1330A-HF	330.0	0.7	2500.0	9500	0.25	0.1	250.2	2.7	13	33Z

Notes:

1. The type number listed have a standard tolerance on the nominal zener voltage of $\pm 5\%$
2. The reverse surge current is a non-repetitive, 8.3ms pulse width square wave or equivalent sine-wave superimposed on IzT per JEDEC method.

Reel Taping Specification

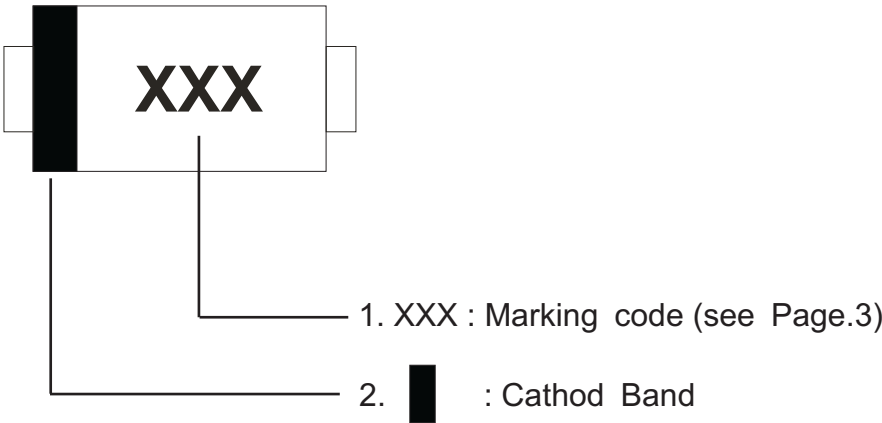


SOD-123FL/SMF	SYMBOL	A	B	C	d	D	D ₁	D ₂
	(mm)	See Note 1			1.55 ± 0.05	178.00 ± 1.00	50.00 Min.	13.00 ± 0.20
	(inch)				0.061 ± 0.002	7.008 ± 0.039	1.969 Min.	0.512 ± 0.008

SOD-123FL/SMF	SYMBOL	E	F	P	P ₀	P ₁	W	W ₁
	(mm)	1.75 ± 0.10	3.50 ± 0.10	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.05	8.00 ± 0.10	11.40 Max.
	(inch)	0.069 ± 0.004	0.138 ± 0.004	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.002	0.315 ± 0.004	0.449 Max.

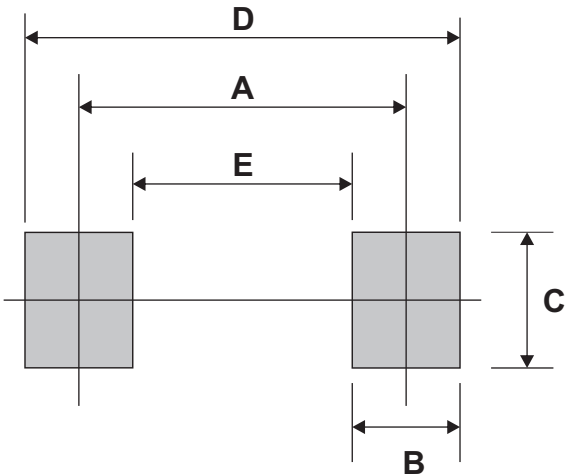
Note: 1. A, B, and C the clearance between the component and the cavity must be within 0.5mm max. for 8mm tape and 12mm tape, 1.0mm max. for 16mm tape and 24mm tape.

Marking Code



Suggested PAD Layout

SIZE	SOD-123FL/SMF	
	(mm)	(inch)
A	2.90	0.114
B	1.30	0.051
C	1.40	0.055
D	4.20	0.165
E	1.60	0.063



Standard Packaging

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