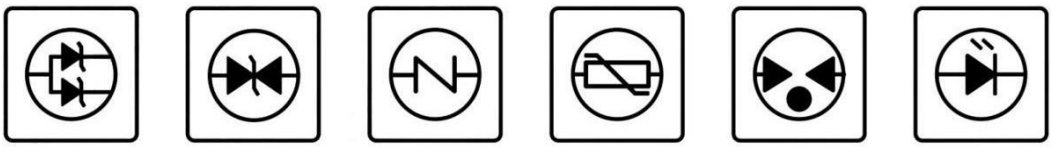
MSKSEMI 美森科
SEMICONDUCTOR



LNZ8FXXXT5G-MS

Product specification

200 mW SOD-882 Surface Mount

This series of Zener diodes is packaged in a SOD− 882 surface mount package. They are designed to provide voltage regulation protection and are especially attractive in situations where space is at a premium. They are well suited for applications such as cellular phones, hand held portables, and high density PC boards.

Specification Features:

- Standard Zener Breakdown Voltage Range − 2.4 V to 24 V
- Steady State Power Rating of 200 mW
- ESD Rating of Class 3 (>16 kV) per Human Body Model
- We declare that the material of product compliance with RoHS requirements and Halogen free.

Mechanical Characteristics:

- **CASE:** Void-free, transfer-molded, thermosetting plastic
- Epoxy Meets UL 94 V−0
- **LEAD FINISH:** 100% Matte Sn (Tin)
- **MOUNTING POSITION:** Any
- **QUALIFIED MAX REFLOW TEMPERATURE:** 260℃
- Device Meets MSL 1 Requirements

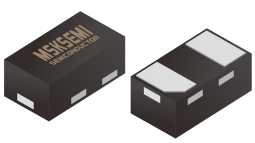
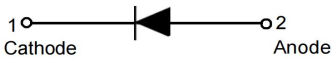
MAXIMUM RATINGS

Rating	Symbol	Max	Unit
Total Device Dissipation FR−5 Board, @ T_A = 25。C	P_D	200	mW
Junction and Storage Temperature Range	T_J, T_{stg}	−65 to +150	℃

Stresses exceeding Maximum Ratings may damage the device.

Maximum Ratings are stress ratings only. Functional operation above the Recommended Operating Conditions is not implied.

Extended exposure to stresses above the Recommended Operating Conditions may affect device reliability.

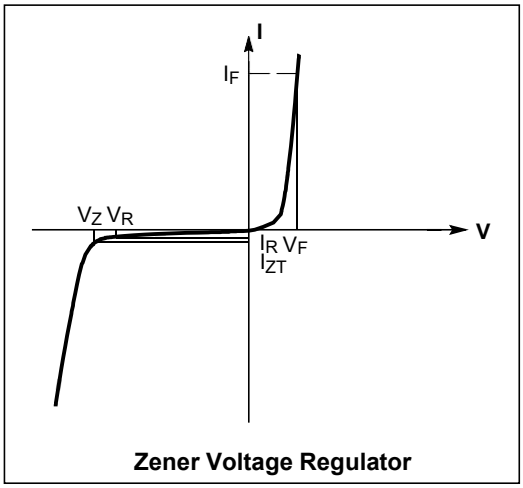
PACKAGE OUTLINE	PIN CONFIGURATION
	
SOD-882	

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ELECTRICAL CHARACTERISTICS

(T_A = 25°C unless otherwise noted,
V_F = 0.9 V Max. @ I_F = 10 mA for all types)

Symbol	Parameter
V_Z	Reverse Zener Voltage @ I_{ZT}
I_{ZT}	Reverse Current
Z_{ZT}	Maximum Zener Impedance @ I_{ZT}
I_{ZK}	Reverse Current
Z_{ZK}	Maximum Zener Impedance @ I_{ZK}
I_R	Reverse Leakage Current @ V_R
V_R	Reverse Voltage
I_F	Forward Current
V_F	Forward Voltage @ I_F
©V_Z	Maximum Temperature Coefficient of V_Z
C	Max. Capacitance @V_R = 0 and f = 1 MHz



Zener Voltage Regulator

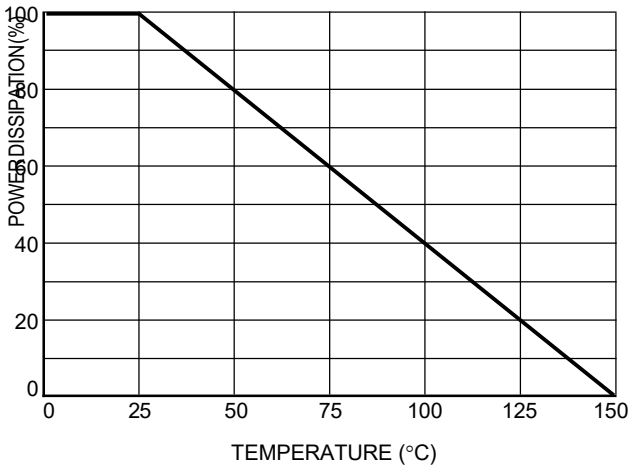


Figure 1. Steady State Power Derating

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ELECTRICAL CHARACTERISTICS (TA = 25℃ unless otherwise noted, VF = 0.9 V Max. @ IF = 10 mA for all types)

P/N	Device Marking	Zener Voltage (Note 1)			Zener Impedance			Leakage Current		®Vz (mV/k) @ IZT		C @ VR = 0 f = 1 MHz
		Vz (Volts)		@ IZT	ZZT @ IZT	ZZK @ IZK		IR @ VR				
		Min	Max	mA	fi	fi	mA	μA	Volts	Min	Max	pF
LNZ8F2V4T5G-MS	J*	2.28	2.52	5	100	1000	1	50	1	−3.5	0	210
LNZ8F2V7T5G-MS	E*	2.57	2.84	5	100	1000	1	20	1	−3.5	0	210
LNZ8F3V0T5G-MS	T*	2.85	3.15	5	100	1000	1	10	1	−3.5	0	210
LNZ8F3V3T5G-MS	Q*	3.14	3.47	5	100	1000	1	10	1	−3.5	0	210
LNZ8F3V6T5G-MS	3*	3.42	3.78	5	100	1000	1	10	1	−3.5	0	210
LNZ8F3V9T5G-MS	V*	3.71	4.10	5	100	1000	1	5	1	−3.5	−2.5	210
LNZ8F4V3T5G-MS	Y*	4.09	4.52	5	100	1000	1	5	1	−3.5	0	210
LNZ8F4V7T5G-MS	7*	4.47	4.94	5	100	800	0.5	2	1	−3.5	0.2	150
LNZ8F5V1T5G-MS	4*	4.85	5.36	5	80	500	0.5	2	1.5	−2.7	1.2	130
LNZ8F5V6T5G-MS	5*	5.32	5.88	5	60	200	0.5	1	2.5	−2.0	2.5	115
LNZ8F6V2T5G-MS	6*	5.89	6.51	5	60	100	0.5	1	3	0.4	3.7	110
LNZ8F6V8T5G-MS	A*	6.46	7.14	5	40	60	0.5	0.5	3.5	1.2	4.5	105
LNZ8F7V5T5G-MS	D*	7.13	7.88	5	30	60	0.5	0.5	4	2.5	5.3	100
LNZ8F8V2T5G-MS	E*	7.79	8.61	5	30	60	0.5	0.5	5	3.2	6.2	90
LNZ8F9V1T5G-MS	F*	8.65	9.56	5	30	60	0.5	0.5	6	3.8	7	80
LNZ8F10VT5G-MS	J*	9.50	10.50	5	30	60	0.5	0.1	7	4.5	8	80
LNZ8F11VT5G-MS	K*	10.45	11.55	5	30	60	0.5	0.1	8	5.4	9	80
LNZ8F12VT5G-MS	L*	11.40	12.60	5	30	80	0.5	0.1	9	6	10	80
LNZ8F13VT5G-MS	P*	12.35	13.65	5	37	80	0.5	0.1	10	7	11	75
LNZ8F15VT5G-MS	Q*	14.25	15.75	5	42	80	0.5	0.1	11	9.2	13	70
LNZ8F16VT5G-MS	R*	15.20	16.80	5	50	80	0.5	0.1	12	10.4	14	65
LNZ8F18VT5G-MS	T*	17.10	18.90	5	50	80	0.5	0.1	14	12.4	16	60
LNZ8F20VT5G-MS	V*	19.00	21.00	5	55	100	0.5	0.1	15.4	14.4	18	55
LNZ8F22VT5G-MS	Y*	20.90	23.10	5	55	100	0.5	0.1	16.8	15.4	20	55
LNZ8F24VT5G-MS	S*	22.80	25.20	5	70	120	0.5	0.1	18.9	16.8	22	50

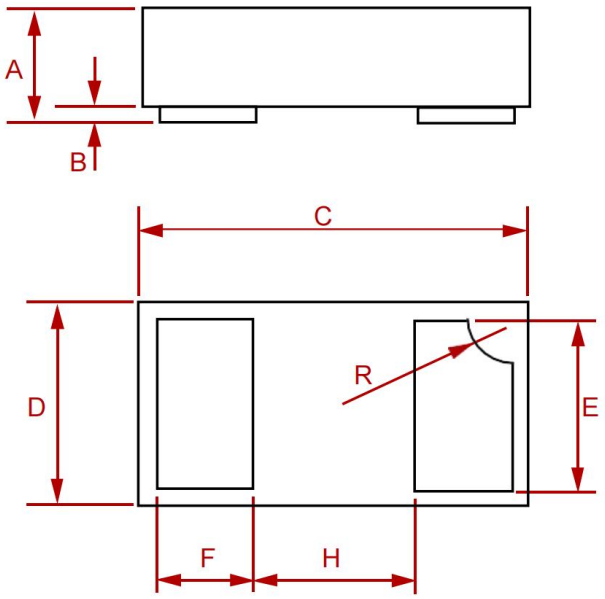
*Rotated 90°.

**Rotated 270°.

1. Zener voltage is measured with a pulse test current Iz at an ambient temperature of 25°C.

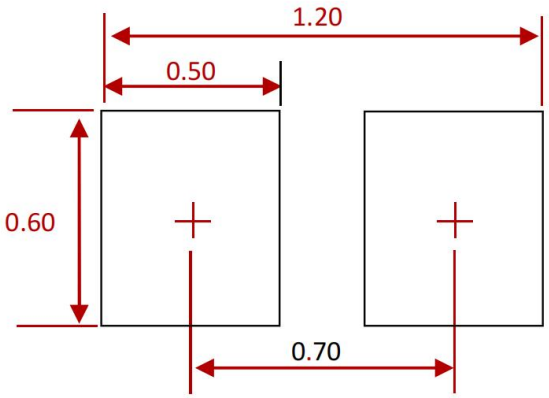
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PACKAGE MECHANICAL DATA



Dim	Inches		Millimeters	
	MIN	MAX	MIN	MAX
A	0.0125	0.02	0.32	0.52
B	0.000	0.002	0.00	0.05
C	0.037	0.043	0.95	1.080
D	0.022	0.027	0.55	0.680
E	0.016	0.024	0.40	0.60
F	0.008	0.012	0.20	0.30
H	0.015Typ.		0.40Typ.	
R	0.001	0.005	0.05	0. 15

Suggested Pad Layout



NOTES:

1. CONTROLLING DIMENSIONS ARE IN MILLIMETERS (ANGLES IN DEGREES).
2. THIS LAND PATTERN IS FOR REFERENCE PURPOSES ONLY. CONSULT YOUR MANUFACTURING GROUP TO ENSURE YOUR COMPANY'S MANUFACTURING GUIDELINES ARE MET.

REEL SPECIFICATION

P/N	PKG	QTY
LNZ8FXXXT5G-MS	SOD-882	10000

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