

**Zener Voltage Regulators**  
**200mW Surface Mount Zener Diodes**

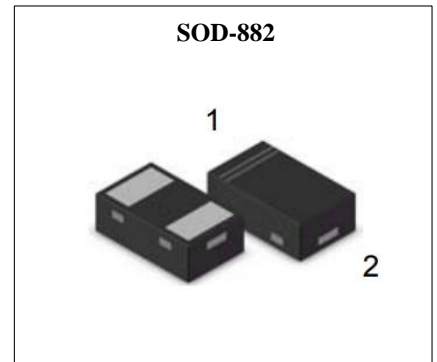
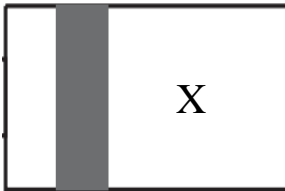
This series of Zener diodes is packaged in a SOD-882 surface mount package that has a power dissipation of 200 mW. They are designed to provide voltage regulation protection and are especially attractive in situations where space is at a premium. They are well suited for applications such as cellular phones, hand held portables, and high density PC boards.

**Features**

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

**Mechanical Data**

- Case : SOD-882 / DFN1006-2 Void-free, transfer-molded plastic
- Lead Finish : 100% Matte Sn (Tin)
- Maximum Case Temperature for Soldering Purposes : 260°C for 10 Seconds
- Polarity : Cathode indicated by polarity band
- Flammability Rating : UL 94 V-0
- Mounting Position : Any
- Device Meets MSL 1 Requirements


**Marking**


X = Specific Device Code

**Maximum Ratings**

Parameter	Symbol	Rated Value	Unit	Remark
Total Power Dissipation on FR-5 Board,(Note 1)at Ta=25 °C	P <sub>D</sub>	200	mW	
Junction and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-65 to +150	°C	

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.

**Electrical Characteristics** ( $T_A = 25^\circ\text{C}$  unless otherwise noted,  $V_F = 0.9\text{ V Max.}$  @  $I_F = 10\text{ mA}$  for all types)

Device	Device Marking	Zener Voltage				Zener Impedance (Note 5)			Leakage Current $I_R$ @ $V_R$		$\Theta V_Z(\text{mV/k})@I_{ZT}$		Capacitance @ $V_R=0$ , $f=1\text{MHz}$
		$V_Z$ (V)			$I_{ZT}$	$Z_{ZT}$ @	$Z_{ZK}$ @ $I_{ZK}$	$I_{ZK}$	$I_R$	$V_R$	mV/k		C
		Min	Nom	Max	mA	$\Omega$	$\Omega$	mA	$\mu\text{A}$	Volts	Min	Max	pF
LNZ8F2V4T5G	J	2.28	2.4	2.52	5.0	100	1000	1.0	50	1.0	-3.5	0.0	210
LNZ8F2V7T5G	E**	2.57	2.7	2.84	5.0	100	1000	1.0	20	1.0	-3.5	0.0	210
LNZ8F3V0T5G	T**	2.85	3.0	3.15	5.0	100	1000	1.0	10	1.0	-3.5	0.0	210
LNZ8F3V3T5G	Q	3.14	3.3	3.47	5.0	100	1000	1.0	10	1.0	-3.5	0.0	210
LNZ8F3V6T5G	3**	3.42	3.6	3.78	5.0	100	1000	1.0	10	1.0	-3.5	0.0	210
LNZ8F3V9T5G	V**	3.71	3.9	4.10	5.0	100	1000	1.0	5.0	1.0	-3.5	-2.5	210
LNZ8F4V3T5G	Y**	4.09	4.3	4.52	5.0	100	1000	1.0	5.0	1.0	-3.5	0.0	210
LNZ8F4V7T5G	7	4.47	4.7	4.94	5.0	100	800	0.5	2.0	1.0	-3.5	0.2	150
LNZ8F5V1T5G	4	4.85	5.1	5.36	5.0	80	500	0.5	2.0	1.5	-2.7	1.2	130
LNZ8F5V6T5G	5*	5.32	5.6	5.88	5.0	60	200	0.5	1.0	2.5	-2.0	2.5	115
LNZ8F6V2T5G	6	5.89	6.2	6.51	5.0	60	100	0.5	1.0	3.0	0.4	3.7	110
LNZ8F6V8T5G	A*	6.46	6.8	7.14	5.0	40	60	0.5	0.5	3.5	1.2	4.5	105
LNZ8F7V5T5G	D*	7.13	7.5	7.88	5.0	30	60	0.5	0.5	4.0	2.5	5.3	100
LNZ8F8V2T5G	E*	7.79	8.2	8.61	5.0	30	60	0.5	0.5	5.0	3.2	6.2	90
LNZ8F9V1T5G	F*	8.65	9.1	9.56	5.0	30	60	0.5	0.5	6.0	3.8	7.0	80
LNZ8F10VT5G	J*	9.50	10	10.50	5.0	30	60	0.5	0.1	7.0	4.5	8.0	80
LNZ8F11VT5G	K*	10.45	11	11.55	5.0	30	60	0.5	0.1	8.0	5.4	9.0	80
LNZ8F12VT5G	L*	11.40	12	12.60	5.0	30	80	0.5	0.1	9.0	6.0	10.0	80
LNZ8F13VT5G	P*	12.35	13	13.65	5.0	37	80	0.5	0.1	10.0	7.0	11.0	75
LNZ8F15VT5G	Q*	14.25	15	15.75	5.0	42	80	0.5	0.1	11.0	9.2	13.0	70
LNZ8F16VT5G	R*	15.20	16	16.80	5.0	50	80	0.5	0.1	12.0	10.4	14.0	65
LNZ8F18VT5G	T*	17.10	18	18.90	5.0	50	80	0.5	0.1	14.0	12.4	16.0	60
LNZ8F20VT5G	V*	19.00	20	21.00	5.0	55	100	0.5	0.1	15.4	14.4	18.0	55
LNZ8F22VT5G	Y*	20.90	22	23.10	5.0	55	100	0.5	0.1	16.8	15.4	20.0	55
LNZ8F24VT5G	S	22.80	24	25.20	5.0	70	120	0.5	0.1	18.9	16.8	22.0	50

 \* Rotated  $90^\circ$ 

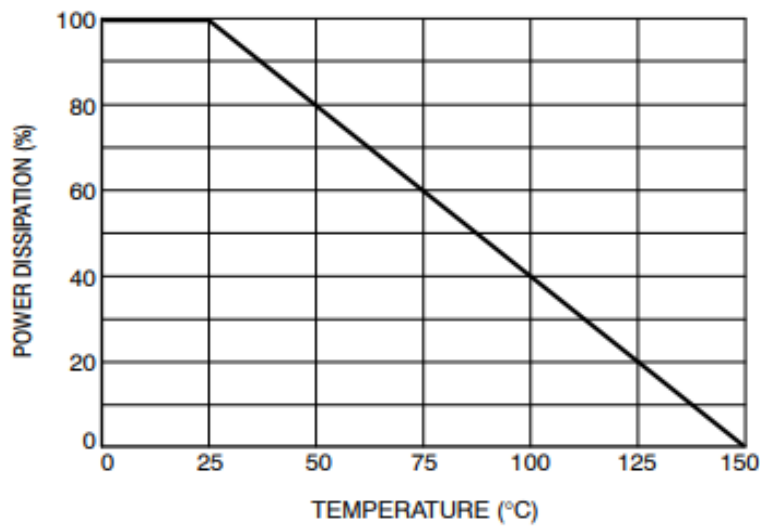
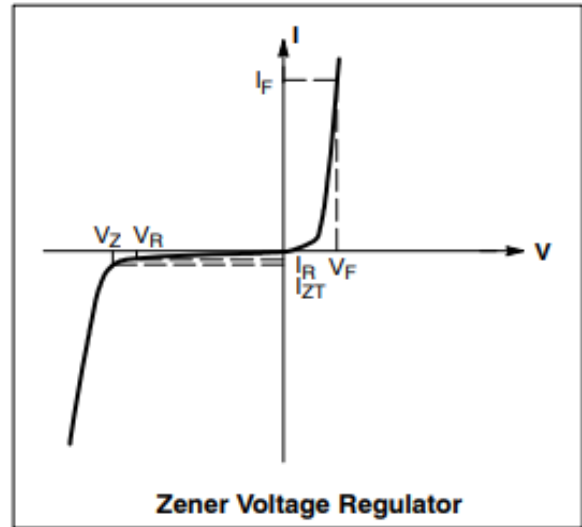
 \*\* Rotated  $270^\circ$ 

 1. Zener voltage is measured with a pulse test current  $I_Z$  at an ambient temperature of  $25^\circ\text{C}$ .

**ELECTRICAL CHARACTERISTICS**

( $T_A = 25^\circ\text{C}$  unless otherwise noted,  
 $V_F = 0.9\text{ V Max. @ } I_F = 10\text{ mA}$  for all types)

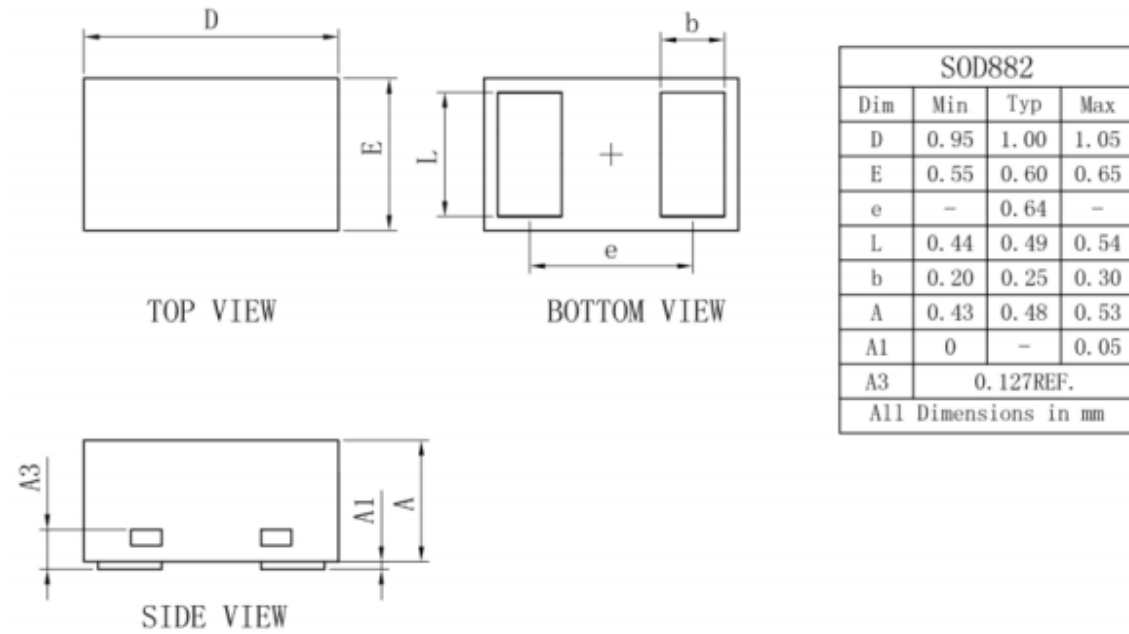
Symbol	Parameter
$V_Z$	Reverse Zener Voltage @ $I_{ZT}$
$I_{ZT}$	Reverse Current
$Z_{ZT}$	Maximum Zener Impedance @ $I_{ZT}$
$I_{ZK}$	Reverse Current
$Z_{ZK}$	Maximum Zener Impedance @ $I_{ZK}$
$I_R$	Reverse Leakage Current @ $V_R$
$V_R$	Reverse Voltage
$I_F$	Forward Current
$V_F$	Forward Voltage @ $I_F$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



**Figure 1. Steady State Power Derating**

**Outline and Dimensions**

**SOD-882/DFN1006-2**



**Soldering Footprint**

