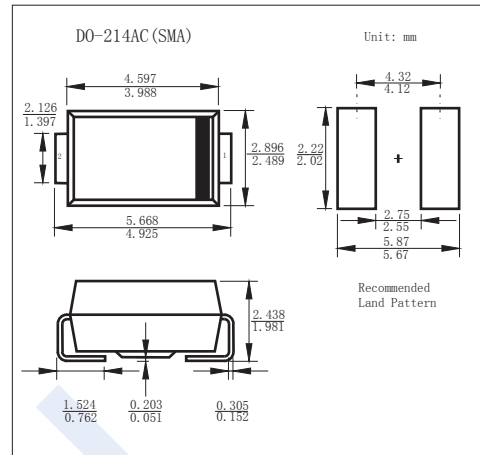


Zener Diodes

1SMA5914 ~ 1SMA5949

■ Features

- Low profile package
- Built-in strain relief
- Glass passivated junction
- Low inductance
- Typical I_r less than 1uA above 12V
- High temperature soldering : 260 °C /10 seconds at terminals



■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Peak Forward Surge Current @ 8.3ms single half sine-wave	I_{FSM}	10	A
Power Dissipation @ $T_a = 70^\circ\text{C}$ (Note.1)	P_d	1.5	W
Derate above 70°C		15	mW/ $^\circ\text{C}$
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature range	T_{stg}	-55 to 150	

Note.1: Mounted on 5.0mm^2 (.013mm thick) land areas.

Zener Diodes

1SMA5914 ~ 1SMA5949

■ Electrical Characteristics Ta = 25°C

Part Number	Nominal Zener Voltage			Maximum Zener Impedance				Max Reverse Leakage Current		Marking Code
	Vz@Izt			Zzt @ Izt		Zzk@Izk		IR@VR		
	Nom.V	Min.V	Max.V	Ω	mA	Ω	mA	μA	V	
1SMA5914	3.6	3.42	3.78	9	104.2	500	1.00	75.00	1.00	914A
1SMA5915	3.9	3.71	4.10	8	96.1	500	1.00	25.00	1.00	915A
1SMA5916	4.3	4.09	4.52	6	87.2	500	1.00	5.00	1.00	916A
1SMA5917	4.7	4.47	4.94	5	79.8	500	1.00	5.00	1.50	917A
1SMA5918	5.1	4.85	5.36	4	73.5	350	1.00	5.00	2.00	918A
1SMA5919	5.6	5.32	5.88	2	66.9	250	1.00	5.00	3.00	919A
1SMA5920	6.2	5.89	6.51	2	60.5	200	1.00	5.00	4.00	920A
1SMA5921	6.8	6.46	7.14	3	55.1	200	1.00	5.00	5.20	921A
1SMA5922	7.5	7.13	7.88	3	50.0	400	0.50	5.00	6.00	922A
1SMA5923	8.2	7.79	8.61	4	45.7	400	0.50	5.00	6.50	923A
1SMA5924	9.1	8.65	9.56	4	41.2	500	0.50	5.00	7.00	924A
1SMA5925	10	9.50	10.50	5	37.5	500	0.25	5.00	8.00	925A
1SMA5926	11	10.45	11.55	6	34.1	550	0.25	1.00	8.40	926A
1SMA5927	12	11.40	12.60	7	31.2	550	0.25	1.00	9.10	927A
1SMA5928	13	12.35	13.65	7	28.8	550	0.25	1.00	9.90	928A
1SMA5929	15	14.25	15.75	9	25.0	600	0.25	1.00	11.40	929A
1SMA5930	16	15.20	16.80	10	23.4	600	0.25	1.00	12.20	930A
1SMA5931	18	17.10	18.90	12	20.8	650	0.25	1.00	13.70	931A
1SMA5932	20	19.00	21.00	14	18.7	650	0.25	1.00	15.20	932A
1SMA5933	22	20.90	23.10	18	17.0	650	0.25	1.00	16.70	933A
1SMA5934	24	22.80	25.20	19	15.6	700	0.25	1.00	18.20	934A
1SMA5935	27	25.65	28.35	23	13.9	700	0.25	1.00	20.60	935A
1SMA5936	30	28.50	31.50	26	12.5	750	0.25	1.00	22.80	936A
1SMA5937	33	31.35	34.65	33	11.4	800	0.25	1.00	25.10	937A
1SMA5938	36	34.20	37.80	38	10.4	850	0.25	1.00	27.40	938A
1SMA5939	39	37.05	40.95	45	9.6	900	0.25	1.00	29.70	939A
1SMA5940	43	40.85	45.15	53	8.7	950	0.25	1.00	32.70	940A
1SMA5941	47	44.65	49.35	67	8.0	1000	0.25	1.00	35.80	941A
1SMA5942	51	48.45	53.55	70	7.3	1100	0.25	1.00	38.80	942A
1SMA5943	56	53.20	58.80	86	6.7	1300	0.25	1.00	42.60	943A
1SMA5944	62	58.90	65.10	100	6.0	1500	0.25	1.00	47.10	944A
1SMA5945	68	64.60	71.40	120	5.5	1700	0.25	1.00	51.70	945A
1SMA5946	75	71.25	78.75	140	5.0	2000	0.25	1.00	56.00	946A
1SMA5947	82	77.90	86.10	160	4.6	2500	0.25	1.00	62.20	947A
1SMA5948	91	86.45	95.55	200	4.1	3000	0.25	1.00	68.20	948A
1SMA5949	100	95.00	105.00	250	3.7	3100	0.25	1.00	76.00	949A

Zener Diodes

1SMA5914 ~ 1SMA5949

■ Typical Characteristics

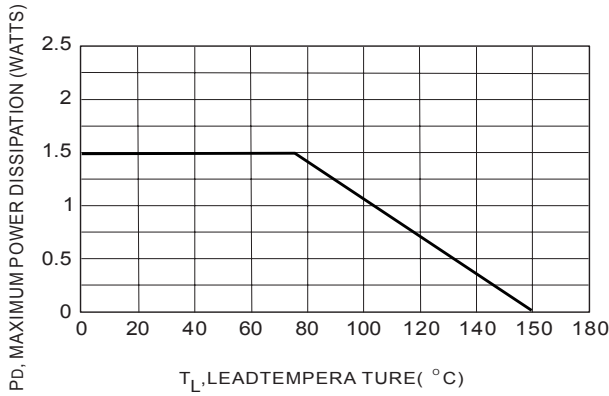


Fig.1 Steady State Power Derating

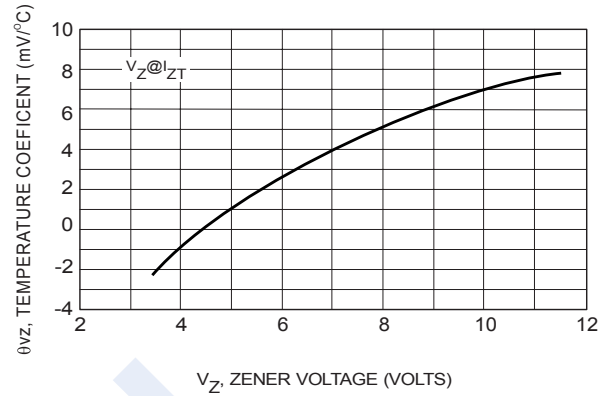


Fig.2 Zener Voltage - to 12 volts

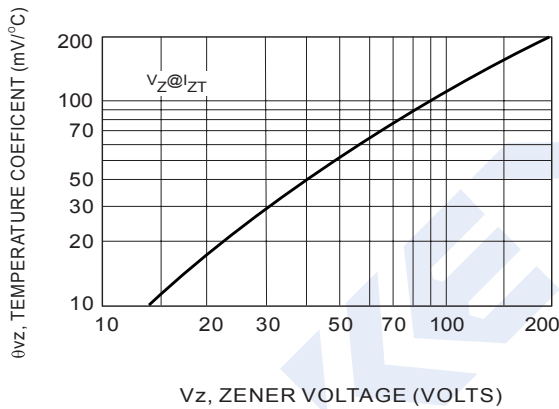


Fig.3 Zener Voltage - 14 to 200 Volts

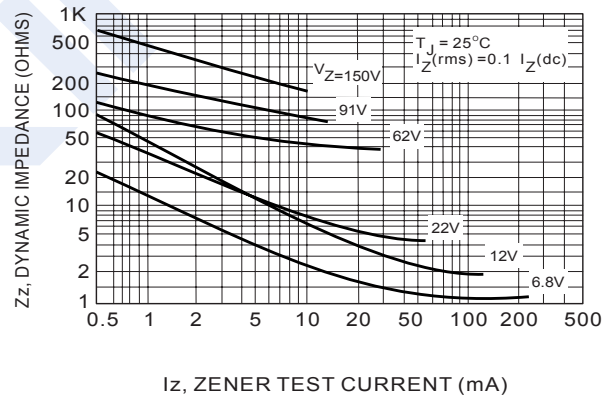


Fig.4 Effect of Zener Current

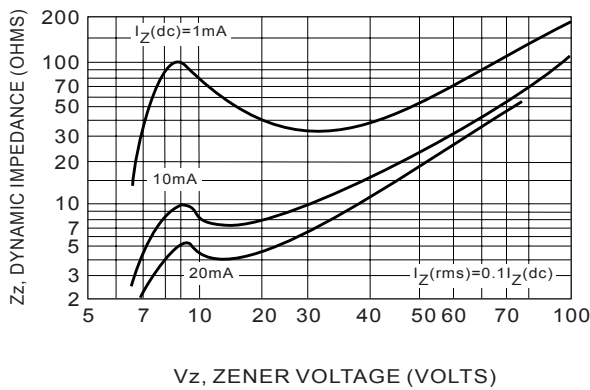


Fig.5 Effect of Zener Voltage

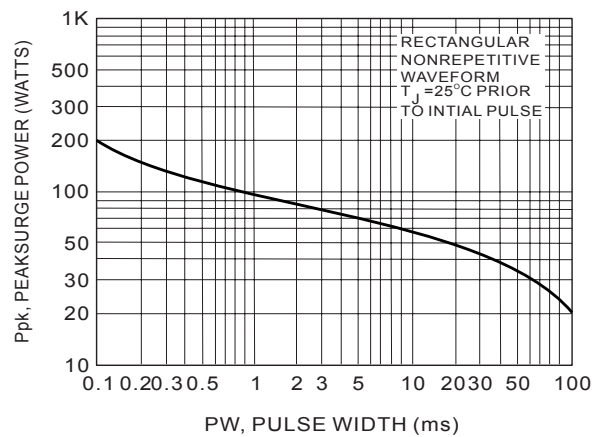
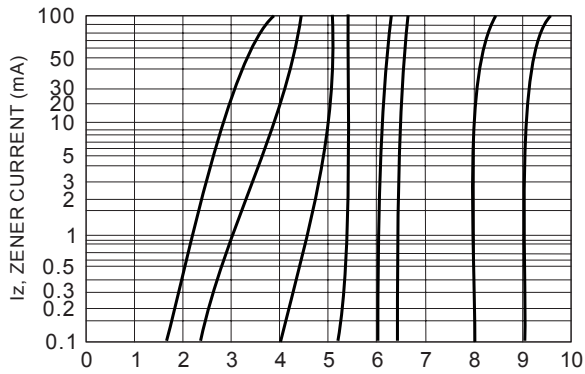


Fig.6 Maximum Surge Power

Zener Diodes

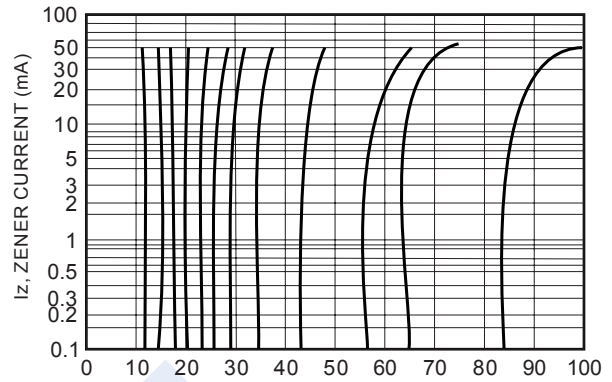
1SMA5914 ~ 1SMA5949

■ Typical Characteristics



V_z , ZENER VOLTAGE (VOLTS)

Fig.7 $V_z = 6.8$ thru 10 Volts



V_z , ZENER VOLTAGE (VOLTS)

Fig.8 $V_z = 12$ thru 82 Volts