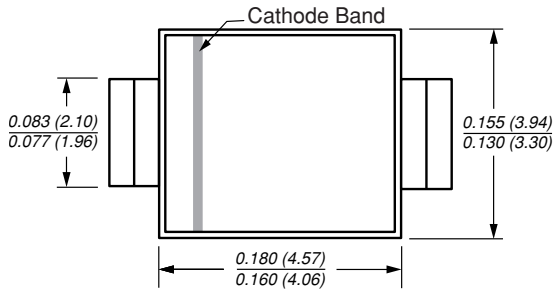




Surface Mount Power Voltage-Regulating Diodes

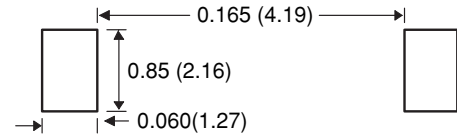
Zener Voltage 9.1 to 68V
Steady State Power 1.5W

DO-215AA (SMBG)

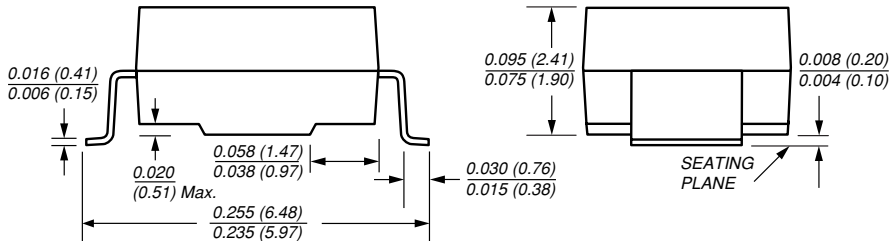


Extended
Voltage Range

Mounting Pad Layout



Dimensions in inches
and (millimeters)



Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- For surface mounted applications
- Glass passivated chip junction
- Low Zener impedance
- Low regulation factor
- High temperature soldering guaranteed: 250°C/10 seconds at terminals

Mechanical Data

Case: JEDEC DO-215AA molded plastic over glass passivated junction

Terminals: Solder plated, solderable per MIL-STD-750, Method 2026

Polarity: Band denotes cathode

Mounting Position: Any **Weight:** 0.003 oz., 0.093 g

Packaging Codes – Options (Antistatic):

51 – 2K per Bulk box, 20K/carton

52 – 750 per 7" plastic Reel (12mm tape), 15K/carton

5B – 3.2K per 13" plastic Reel (12mm tape), 32K/carton

Maximum Electrical Characteristics

Operating Junction and Storage Temperature Range: T_J, T_{STG}: -55°C to +150°C

Part Number	Device Marking Code	Nominal Zener Voltage V _Z at I _{ZT} (V)	Test Current I _{ZT} (mA)	Max. Zener Impedance Leakage Current			Max. Reverse Current I _R at V _R		Max. Zener Current I _{ZM} (mA)
				Z _{1T} at I _{ZT} (Ω)	Z _{2K} at I _{ZK}		I _R (μA)	V _R (V)	
					(Ω)	(mA)			
SMZG3788A,B	VK,L	9.1	41.2	4.0	1000	0.50	50	7.0	140
SMZG3789A,B	WA,B	10	37.5	5.0	1000	0.25	50	7.6	125
SMZG3790A,B	WC,D	11	34.1	6.0	650	0.25	10	8.4	115
SMZG3791A,B	WE,F	12	31.2	7.0	550	0.25	5.0	9.1	105
SMZG3792A,B	WG,H	13	28.8	7.5	550	0.25	5.0	9.9	98
SMZG3793A,B	WI,J	15	25.0	9.0	600	0.25	5.0	11.4	85
SMZG3794A,B	WK,L	16	23.4	10.0	600	0.25	5.0	12.2	80
SMZG3795A,B	XA,B	18	20.8	12.0	650	0.25	5.0	13.7	70
SMZG3796A,B	XC,D	20	18.7	14.0	650	0.25	5.0	15.2	62
SMZG3797A,B	XE,F	22	17.0	17.5	650	0.25	5.0	16.7	56
SMZG3798A,B	XG,H	24	15.6	19.0	700	0.25	5.0	18.2	51
SMZG3799A,B	XI,J	27	13.9	23.0	700	0.25	5.0	20.6	46

Notes: (1) Standard voltage tolerance is ±20%, suffix "A" denotes ±10% and suffix "B" denotes ±5%

(2) Maximum steady state power dissipation is 1.5W at T_L = 75°C (See Fig. 1)

Max. Electrical Characteristics (con't.) Operating Junction and Storage Temperature Range: $T_J, T_{STG}: -55^\circ\text{C}$ to $+150^\circ\text{C}$

Part Number Modified J-Bend	Device Marking Code	Nominal Zener Voltage V_Z at I_{ZT} (V)	Test Current I_{ZT} (mA)	Max. Zener Impedance Leakage Current			Max. Reverse Current I_R at V_R		Max. Zener Current I_{ZM} (mA)
				Z_{ZT} at I_{ZT} (Ω)	Z_{ZK} at I_{ZK}		I_R (μA)	V_R (V)	
					(Ω)	(mA)			
SMZG3800A,B	XK,L	30	12.5	26.0	750	0.25	5.0	22.8	41
SMZG3801A,B	YA,B	33	11.4	33.0	800	0.25	5.0	25.1	38
SMZG3802A,B	YC,D	36	10.4	38.0	850	0.25	5.0	27.4	35
SMZG3803A,B	YE,F	39	9.6	45.0	900	0.25	5.0	29.7	31
SMZG3804A,B	YG,H	43	8.7	53.0	950	0.25	5.0	32.7	28
SMZG3805A,B	YI,J	47	8.0	67.0	1000	0.25	5.0	35.8	26
SMZG3806A,B	YK,L	51	7.3	70.0	1100	0.25	5.0	38.8	24
SMZG3807A,B	ZA,B	56	6.7	86.0	1300	0.25	5.0	42.6	22
SMZG3808A,B	ZC,D	62	6.0	100.0	1500	0.25	5.0	47.1	20
SMZG3809A,B	ZE,F	68	5.5	120.0	1700	0.25	5.0	51.7	18

Notes: (1) Standard voltage tolerance is $\pm 20\%$, suffix "A" denotes $\pm 10\%$ and suffix "B" denotes $\pm 5\%$
 (2) Maximum steady state power dissipation is 1.5W at $T_L = 75^\circ\text{C}$ (See Fig. 1)

Ratings and Characteristic Curves ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Fig. 1 – Maximum Continuous Power Dissipation

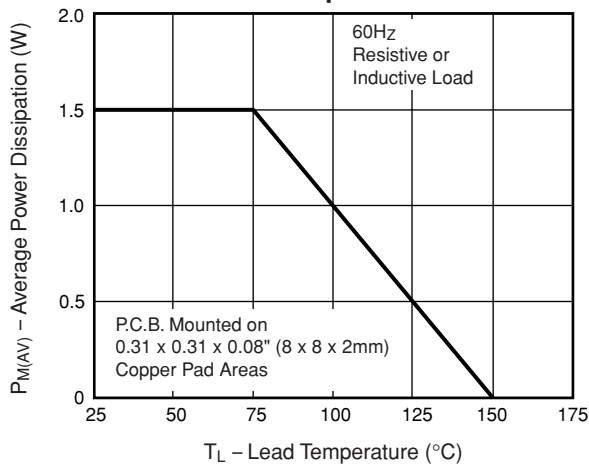


Fig. 2 – Typical Zener Impedance

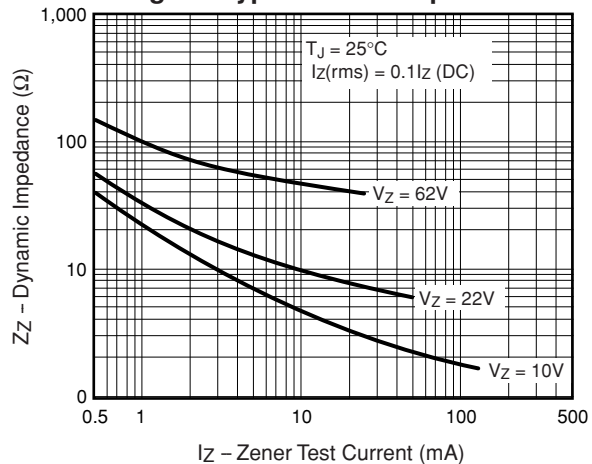


Fig. 3 – Typical Zener Impedance

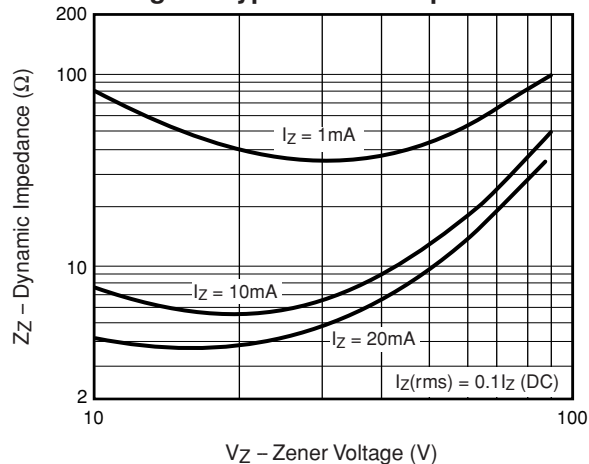
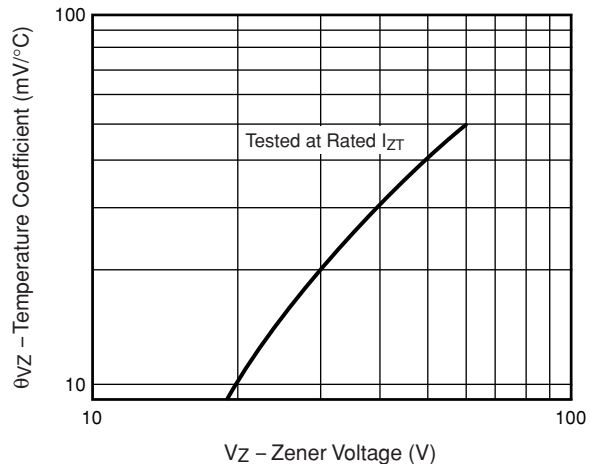


Fig. 4 – Typical Temperature Coefficients





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