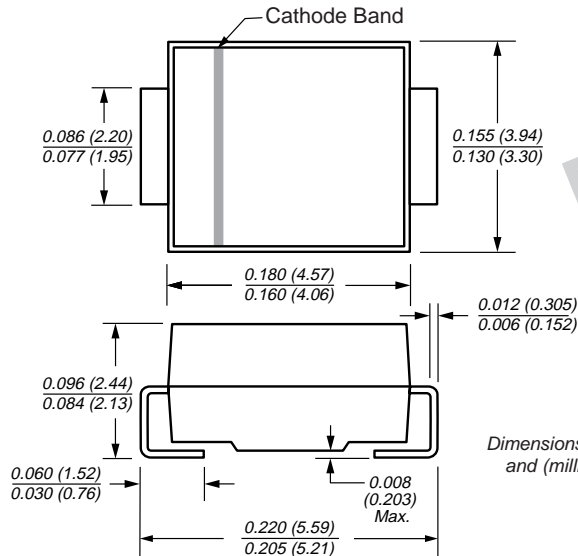




Surface Mount Zener Diodes

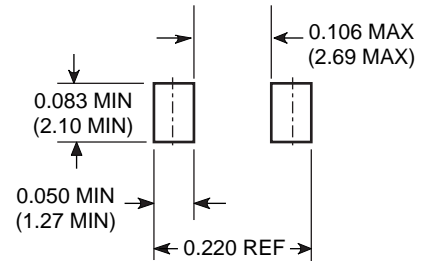
Zener Voltage 9.1 to 68V  
Steady State Power 1.5W

DO-214AA (SMBJ-Bend)



Extended Voltage Range

Mounting Pad Layout



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-214AA 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<sub>J</sub>, T<sub>STG</sub>: -55°C to +150°C

Part Number	Device Marking Code	Nominal Zener Voltage V <sub>Z</sub> at I <sub>ZT</sub> (V)	Test Current I <sub>ZT</sub> (mA)	Max. Zener Impedance Leakage Current			Max. Reverse Current I <sub>R</sub> at V <sub>R</sub>		Max. Zener Current I <sub>ZM</sub> (mA)
				Z <sub>ZT</sub> at I <sub>ZT</sub> (Ω)	Z <sub>ZK</sub> at I <sub>ZK</sub>		I <sub>R</sub> (μA)	V <sub>R</sub> (V)	
					(Ω)	(mA)			
SMZJ3788A,B	VK,L	9.1	41.2	4.0	1000	0.50	50	7.0	140
SMZJ3789A,B	WA,B	10	37.5	5.0	1000	0.25	50	7.6	125
SMZJ3790A,B	WC,D	11	34.1	6.0	650	0.25	10	8.4	115
SMZJ3791A,B	WE,F	12	31.2	7.0	550	0.25	5.0	9.1	105
SMZJ3792A,B	WG,H	13	28.8	7.5	550	0.25	5.0	9.9	98
SMZJ3793A,B	WI,J	15	25.0	9.0	600	0.25	5.0	11.4	85
SMZJ3794A,B	WK,L	16	23.4	10.0	600	0.25	5.0	12.2	80
SMZJ3795A,B	XA,B	18	20.8	12.0	650	0.25	5.0	13.7	70
SMZJ3796A,B	XC,D	20	18.7	14.0	650	0.25	5.0	15.2	62
SMZJ3797A,B	XE,F	22	17.0	17.5	650	0.25	5.0	16.7	56
SMZJ3798A,B	XG,H	24	15.6	19.0	700	0.25	5.0	18.2	51
SMZJ3799A,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<sub>L</sub> = 75°C (See Fig. 1)

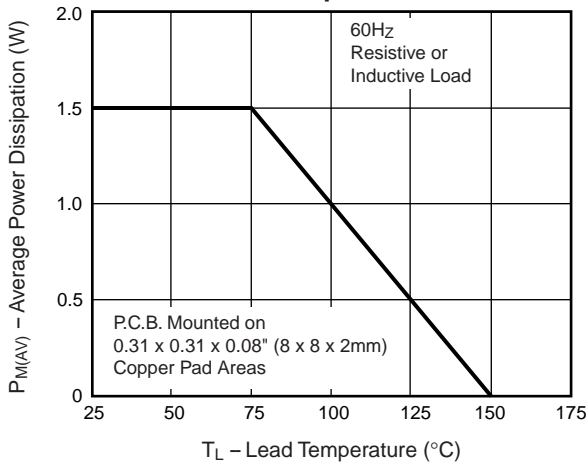
## Max. Electrical Characteristics (con't.) Operating Junction and Storage Temperature Range: $T_J, T_{STG}$ : $-55^{\circ}\text{C}$ to $+150^{\circ}\text{C}$

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 $I_{ZT}$ ( $\Omega$ )	$Z_{ZK}$ at $I_{ZK}$		( $\mu\text{A}$ )	(V)	
					( $\Omega$ )	(mA)			
SMZJ3800A,B	XK,L	30	12.5	26.0	750	0.25	5.0	22.8	41
SMZJ3801A,B	YA,B	33	11.4	33.0	800	0.25	5.0	25.1	38
SMZJ3802A,B	YC,D	36	10.4	38.0	850	0.25	5.0	27.4	35
SMZJ3803A,B	YE,F	39	9.6	45.0	900	0.25	5.0	29.7	31
SMZJ3804A,B	YG,H	43	8.7	53.0	950	0.25	5.0	32.7	28
SMZJ3805A,B	YI,J	47	8.0	67.0	1000	0.25	5.0	35.8	26
SMZJ3806A,B	YK,L	51	7.3	70.0	1100	0.25	5.0	38.8	24
SMZJ3807A,B	ZA,B	56	6.7	86.0	1300	0.25	5.0	42.6	22
SMZJ3808A,B	ZC,D	62	6.0	100.0	1500	0.25	5.0	47.1	20
SMZJ3809A,B	ZE,F	68	5.5	120.0	1700	0.25	5.0	51.7	18

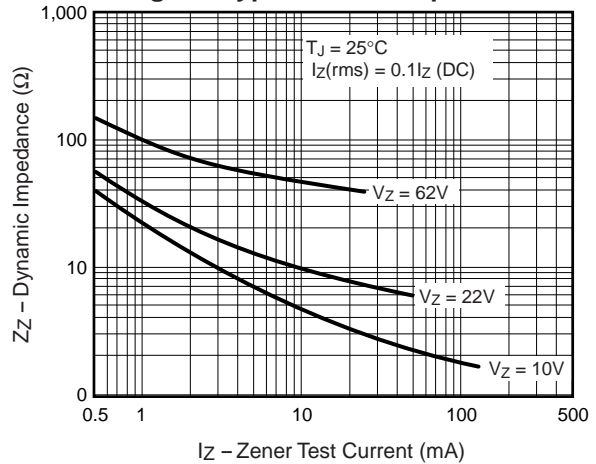
Notes: (1) Standard voltage tolerance is  $\pm 20\%$ , suffix "A" denotes  $\pm 10\%$  and suffix "B" denotes  $\pm 5\%$   
 (2) Maximum steady state power dissipation is 1.5W at  $T_L = 75^{\circ}\text{C}$  (See Fig. 1)

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

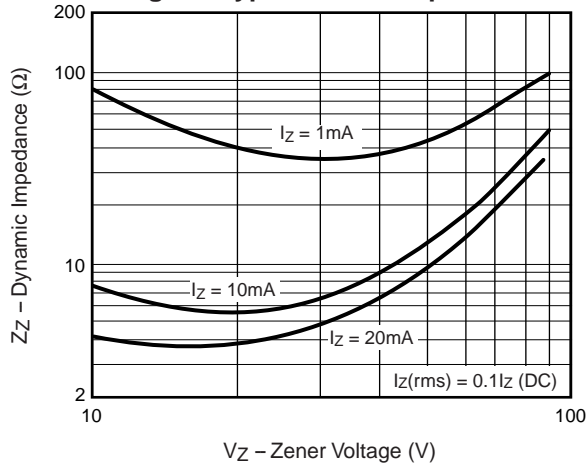
**Fig. 1 – Maximum Continuous Power Dissipation**



**Fig. 2 – Typical Zener Impedance**



**Fig. 3 – Typical Zener Impedance**



**Fig. 4 – Typical Temperature Coefficients**

