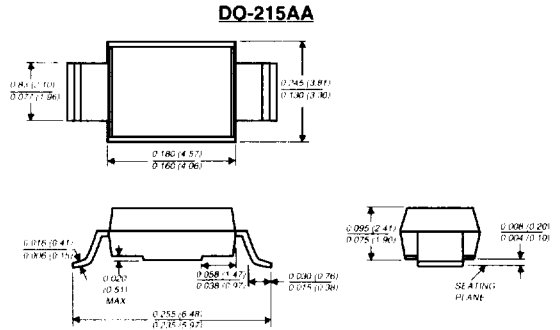
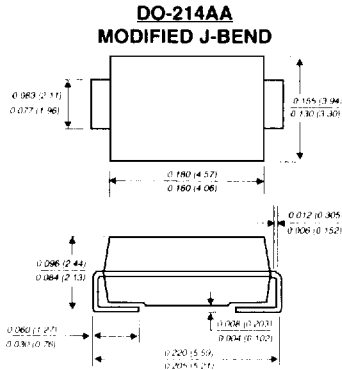


# SMZG AND SMZJ 3789 THRU 3809B

## SURFACE MOUNT ZENER DIODE

Zener Voltage -10 to 68 Volts

Steady State Power - 1.5 Watts



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-214/DO215AA molded plastic over passivated junction
- Terminals:** Solder plated, solderable per MIL STD-750, Method 2026
- Polarity:** Color band denotes positive end (cathode)
- Mounting Position:** Any
- Weight:** 0.003 ounce , 0.093 gram

OPERATING JUNCTION AND STORAGE TEMPERATURE RANGE:  $T_J, T_{STG}$ : -55°C to +150°C

### MAXIMUM ELECTRICAL CHARACTERISTICS

PART NUMBER		DEVICE MARKING CODE	NOMINAL ZENER VOLTAGE $V_z$ at $I_{zT}$ (Volts)	TEST CURRENT $I_{zT}$ (mA)	MAX. ZENER IMPEDANCE			MAX. REVERSE LEAKAGE CURRENT $I_R$ at $V_R$		MAX. ZENER CURRENT $I_{zM}$ (mA)
GULL-WING	MODIFIED J-BEND				$Z_{zT}$ at $I_{zT}$	$Z_{zK}$ at $I_{zK}$		$I_R$ ( $\mu A$ )	$I_R$ (Volts)	
						(Ohms)	(Ohms)			
SMZG3789A,B	SMZJ3789A,B	WA,B	10.0	37.5	5.0	1000	0.25	50.0	7.6	125
SMZG3790A,B	SMZJ3790A,B	WC,D	11.0	34.1	6.0	650	0.25	10.0	8.4	115
SMZG3791A,B	SMZJ3791A,B	WE,F	12.0	31.2	7.0	550	0.25	5.0	9.1	105
SMZG3792A,B	SMZJ3792A,B	WG,H	13.0	28.8	7.5	550	0.25	5.0	9.9	98
SMZG3793A,B	SMZJ3793A,B	WI,J	15.0	25.0	9.0	600	0.25	5.0	11.4	85
SMZG3794A,B	SMZJ3794A,B	WK,L	16.0	23.4	10.0	600	0.25	5.0	12.2	80
SMZG3795A,B	SMZJ3795A,B	XA,B	18.0	20.8	12.0	650	0.25	5.0	13.7	70
SMZG3796A,B	SMZJ3796A,B	XC,D	20.0	18.7	14.0	650	0.25	5.0	15.2	62
SMZG3797A,B	SMZJ3797A,B	XE,F	22.0	17.0	17.5	650	0.25	5.0	16.7	56
SMZG3798A,B	SMZJ3798A,B	XG,H	15.6	19.0	700	0.25	5.0	18.2	51	
SMZG3799A,B	SMZJ3799A,B	XI,J	13.9	23.0	700	0.25	5.0	20.6	46	
SMZG3800A,B	SMZJ3800A,B	XK,L	30.0	12.5	26.0	750	0.25	5.0	22.8	41
SMZG3801A,B	SMZJ3801A,B	YA,B	33.0	11.4	33.0	800	0.25	5.0	25.1	38
SMZG3802A,B	SMZJ3802A,B	YC,D	36.0	10.4	38.0	850	0.25	5.0	27.4	35
SMZG3803A,B	SMZJ3803A,B	YE,F	39.0	9.6	45.0	900	0.25	5.0	29.7	31
SMZG3804A,B	SMZJ3804A,B	YG,H	43.0	8.7	53.0	950	0.25	5.0	32.7	28
SMZG3805A,B	SMZJ3805A,B	YI,J	8.0	67.0	1000	0.25	5.0	35.8	26	
SMZG3806A,B	SMZJ3806A,B	YK,L	51.0	7.3	70.0	1100	0.25	5.0	38.8	24
SMZG3807A,B	SMZJ3807A,B	ZA,B	56.0	6.7	86.0	1300	0.25	5.0	42.6	22
SMZG3808A,B	SMZJ3808A,B	ZC,D	62.0	6.0	100.0	1500	0.25	5.0	47.1	20
SMZG3809A,B	SMZJ3809A,B	ZE,F	68.0	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 1.5 watts at  $T_L = 75^\circ C$  (SEE FIG 1)

# RATINGS AND CHARACTERISTIC CURVES SMZG,J3789 THRU SMZG,J3809B

FIG. 1 - MAXIMUM CONTINUOUS POWER DISSIPATION

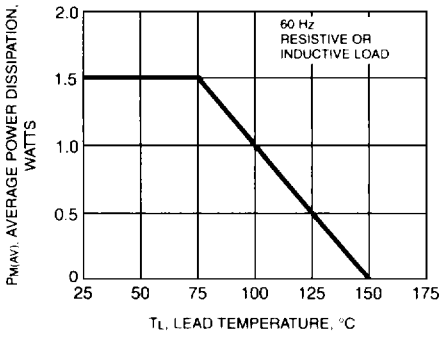


FIG. 2 - TYPICAL ZENER IMPEDANCE

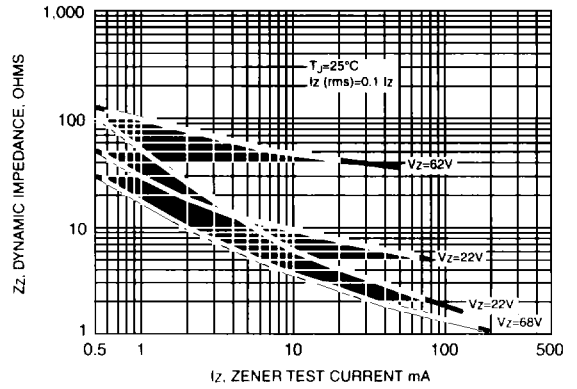


FIG. 3 - TYPICAL ZENER IMPEDANCE

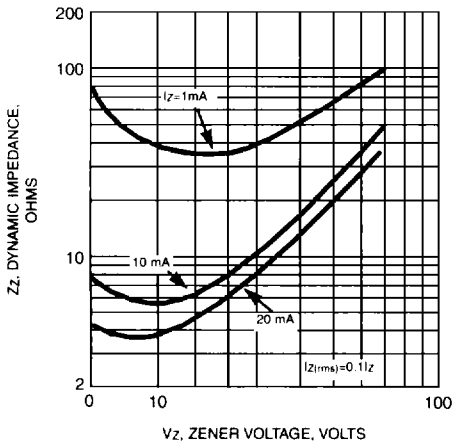
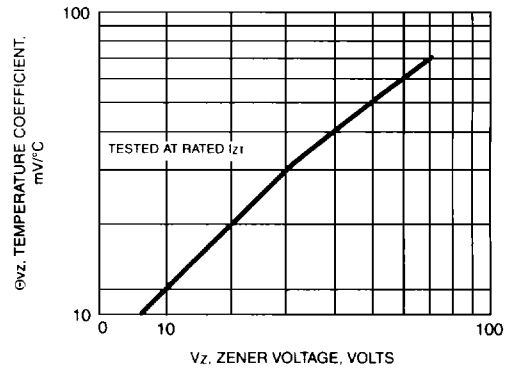


FIG. 4 - TYPICAL TEMPERATURE COEFFICIENTS





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# **PACKAGING, ASSEMBLY RECOMMENDATIONS AND PAD LAYOUTS**

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