

2.0 W Surface Mounted Glass Passivated Zener Diode

Dimensions in mm. CASE: SMB/DO-214AA	Voltage 6.2 to 200 V Power 2.0 W HYPERRECTIFIER®
• Glass passivated junction • The plastic material carries UL 94 V-0 • Low profile package • Easy pick and place • High temperature soldering 260 °C 10 sec	MECHANICAL DATA Terminals: Solder plated, solderable per IEC 68-2-20. Standard Packaging: 8 mm. tape (EIA-RS-481). Weight: 0.093 g.

Maximum Ratings and Electrical Characteristics at 25 °C

P_{tot}	Power dissipation at $T_{amb} = 25\text{ °C}$	2.0 W
T_j	Operating temperature range	- 65 to + 175 °C
T_{stg}	Storage temperature range	- 65 to + 175 °C
V_F	Max. forward voltage drop at $I_F = 1.0\text{ A}$	1.1 V
$R_{th(j-l)}$ $R_{th(j-a)}$	Typical Thermal Resistance (5x5 mm ² x 130 μ Copper Area)	20 °C/W 60 °C/W

Other voltages upon request

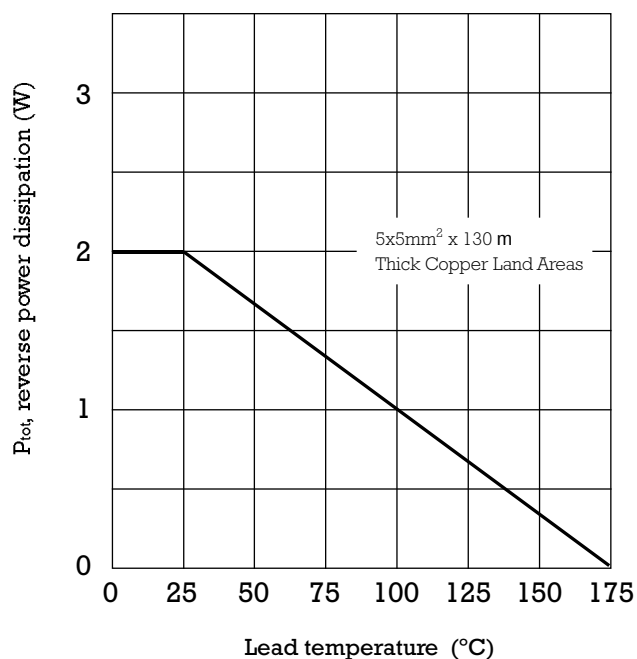
Type	Marking Code	Zener (1) Voltage Range V_Z at I_{ZT}	Maximum Zener Impedance Z_{ZT} at I_{ZT}	Typical Temperature Coefficient at I_{ZT}	Test Current I_{ZT}	Max Reverse Leakage Current I_R @ V_R		Max Regulator Current at 45 °C I_{ZM}	Surge Current (10ms) I_{ZS}
		(V)	(W)	(% / °C)	(mA)	(μ A)	(V)	(mA)	(mA)
Z2SMB6V2	JE	5.8 $\square$ 6.6	2	+0.025	100	5	3	245	9600
Z2SMB6V8	GE	6.4 $\square$ 7.2	2	+0.035	100	5	4	220	8820
Z2SMB7V5	GD	7.0 $\square$ 7.9	2	+0.035	100	5	5	200	8000
Z2SMB8V2	GF	7.7 $\square$ 8.7	2	+0.055	100	5	6	180	7300
Z2SMB9V1	GG	8.5 $\square$ 9.6	4	+0.055	50	5	7	165	6590
Z2SMB10	GH	9.4 $\square$ 10.6	4	+0.070	50	1	7.5	145	6000
Z2SMB11	GK	10.4 $\square$ 11.6	7	+0.075	50	1	8.3	135	5450
Z2SMB12	GL	11.4 $\square$ 12.7	7	+0.075	50	1	9.1	120	5000
Z2SMB13	GM	12.4 $\square$ 14.1	10	+0.075	50	1	9.9	110	4600
Z2SMB15	GN	13.8 $\square$ 15.6	10	+0.075	50	1	11.4	98	4000
Z2SMB16	GP	15.3 $\square$ 17.1	15	+0.085	25	1	12.2	90	3750
Z2SMB18	GQ	16.8 $\square$ 19.1	15	+0.085	25	1	13.7	80	3330
Z2SMB20	GR	18.8 $\square$ 21.2	15	+0.085	25	1	15.2	72	3000
Z2SMB22	GS	20.8 $\square$ 23.3	15	+0.085	25	1	16.7	66	2700
Z2SMB24	GT	22.8 $\square$ 25.6	15	+0.085	25	1	18.2	60	2500
Z2SMB27	GU	25.1 $\square$ 28.9	15	+0.085	25	1	20.5	53	2200
Z2SMB30	GV	28 $\square$ 32	15	+0.085	25	1	22.8	48	2000
Z2SMB33	GW	31 $\square$ 35	15	+0.085	25	1	25	44	1800
Z2SMB36	GX	34 $\square$ 38	40	+0.085	10	1	27.4	40	1600
Z2SMB39	GY	37 $\square$ 41	40	+0.085	10	1	29.6	37	1500
Z2SMB43	GZ	40 $\square$ 46	45	+0.095	10	1	32.7	33	1300
Z2SMB47	HD	44 $\square$ 50	45	+0.095	10	1	35.7	30	1200
Z2SMB51	HF	48 $\square$ 54	60	+0.095	10	1	38.8	27	1100
Z2SMB56	HG	52 $\square$ 60	60	+0.095	10	1	42.5	25	1000
Z2SMB62	HH	58 $\square$ 66	80	+0.105	10	1	47.1	21	960
Z2SMB68	HK	64 $\square$ 72	80	+0.105	10	1	51.7	20	880
Z2SMB75	HL	70 $\square$ 80	100	+0.105	10	1	57	18	800
Z2SMB82	HM	77 $\square$ 87	100	+0.105	10	1	62.4	16	730
Z2SMB91	HN	85 $\square$ 96	200	+0.110	5	1	69.2	15	650
Z2SMB100	HP	94 $\square$ 106	200	+0.110	5	1	76	13	600
Z2SMB110	HQ	104 $\square$ 116	250	+0.110	5	1	83.5	12	550
Z2SMB120	HR	114 $\square$ 127	250	+0.110	5	1	91.2	11	500
Z2SMB130	HS	124 $\square$ 141	300	+0.110	5	1	98.2	10	460
Z2SMB150	HT	138 $\square$ 156	300	+0.110	5	1	114	9	400
Z2SMB160	HU	153 $\square$ 171	350	+0.110	5	1	122	8.5	375
Z2SMB180	HV	168 $\square$ 191	350	+0.110	5	1	137	8.0	330
Z2SMB200	HW	188 $\square$ 212	350	+0.110	5	1	152	7.5	300

(1) Tested with pulses.

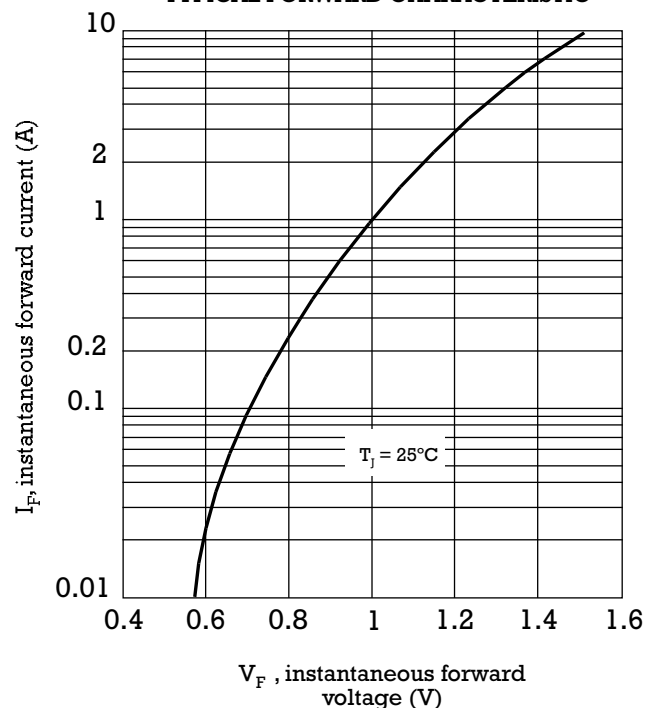
Pulse test: tp $\leq$ 50 ms; d < 2%

Rating And Characteristic Curves

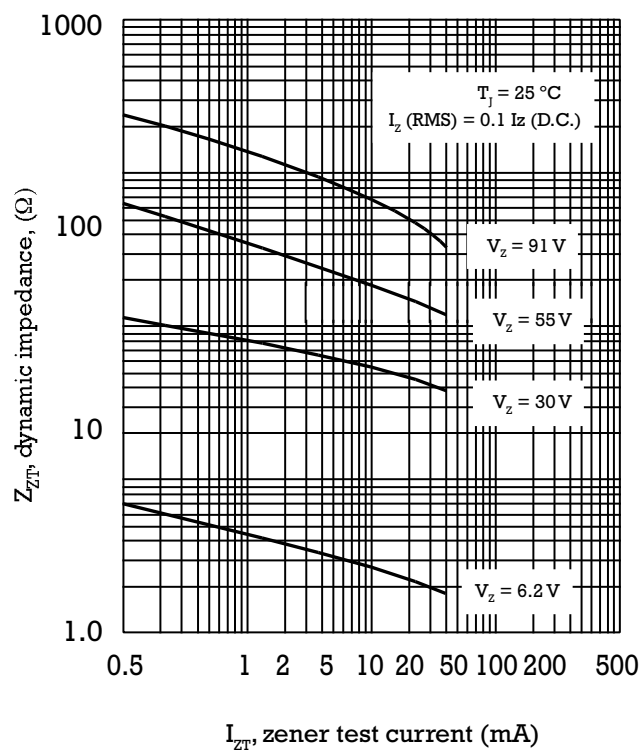
MAXIMUM CONTINUOUS POWER DISSIPATION



TYPICAL FORWARD CHARACTERISTIC



TYPICAL ZENER IMPEDANCE



TYPICAL REVERSE CHARACTERISTIC

