



Z2SMB6V2 Z2SMB200

2.0 W Surface Mounted Glass Passivated Zener Diode

Dimensions in mm. CASE: SMB/DO-214AA Week code Year code Type No. Closs	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.
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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

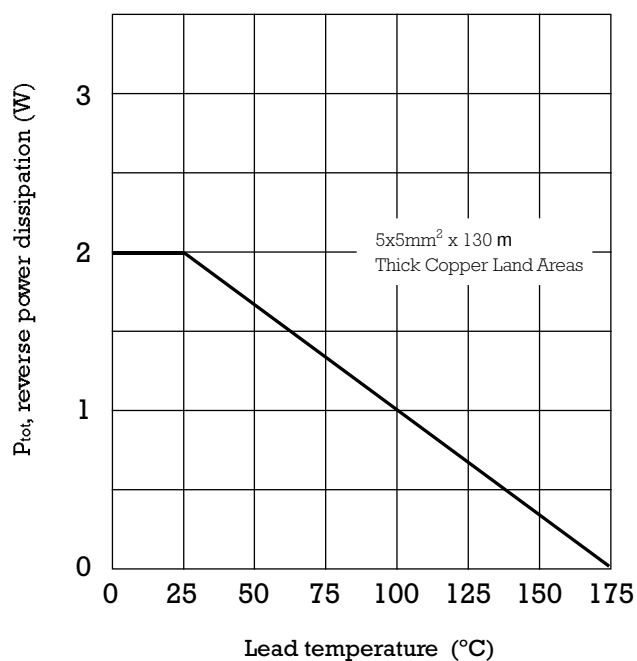
Type	Marking Code	Zener (1) Voltage Range V_Z at I_{ZT}	Maximum Zener Impedance Z_{ZT} at I_{ZT}	Typical Temperature Coefficient at I_{ZT}	Test Current I_{ZT}	Max Reverse Leakage Current I_R @ V_R		Max Regulator Current at 45 °C I_{ZM}	Surge Current (10ms) I_{ZS}
		(V)	(W)	(% / °C)	(mA)	(μA)	(V)	(mA)	(mA)
Z2SMB6V2	JE	5.8V ± 0.6	2	+0.025	100	5	3	245	9600
Z2SMB6V8	GE	6.4V ± 0.2	2	+0.035	100	5	4	220	8820
Z2SMB7V5	GD	7.0V ± 0.9	2	+0.035	100	5	5	200	8000
Z2SMB8V2	GF	7.7V ± 0.7	2	+0.055	100	5	6	180	7300
Z2SMB9V1	CG	8.5V ± 0.6	4	+0.055	50	5	7	165	6590
Z2SMB10	GH	9.4V ± 0.6	4	+0.070	50	1	7.5	145	6000
Z2SMB11	GK	10.4V ± 1.6	7	+0.075	50	1	8.3	135	5450
Z2SMB12	GL	11.4V ± 2.7	7	+0.075	50	1	9.1	120	5000
Z2SMB13	GM	12.4V ± 4.1	10	+0.075	50	1	9.9	110	4600
Z2SMB15	GN	13.8V ± 5.6	10	+0.075	50	1	11.4	98	4000
Z2SMB16	GP	15.3V ± 7.1	15	+0.085	25	1	12.2	90	3750
Z2SMB18	GQ	16.8V ± 9.1	15	+0.085	25	1	13.7	80	3330
Z2SMB20	GR	18.8V ± 1.2	15	+0.085	25	1	15.2	72	3000
Z2SMB22	GS	20.8V ± 3.3	15	+0.085	25	1	16.7	66	2700
Z2SMB24	GT	22.8V ± 5.6	15	+0.085	25	1	18.2	60	2500
Z2SMB27	GU	25.1V ± 8.9	15	+0.085	25	1	20.5	53	2200
Z2SMB30	GV	28V ± 2	15	+0.085	25	1	22.8	48	2000
Z2SMB33	GW	31V ± 5	15	+0.085	25	1	25	44	1800
Z2SMB36	GX	34V ± 8	40	+0.085	10	1	27.4	40	1600
Z2SMB39	GY	37V ± 1	40	+0.085	10	1	29.6	37	1500
Z2SMB43	GZ	40V ± 6	45	+0.095	10	1	32.7	33	1300
Z2SMB47	HD	44V ± 0	45	+0.095	10	1	35.7	30	1200
Z2SMB51	HF	48V ± 4	60	+0.095	10	1	38.8	27	1100
Z2SMB56	HG	52V ± 0	60	+0.095	10	1	42.5	25	1000
Z2SMB62	HH	58V ± 6	80	+0.105	10	1	47.1	21	960
Z2SMB68	HK	64V ± 2	80	+0.105	10	1	51.7	20	880
Z2SMB75	HL	70V ± 0	100	+0.105	10	1	57	18	800
Z2SMB82	HM	77V ± 7	100	+0.105	10	1	62.4	16	730
Z2SMB91	HN	85V ± 6	200	+0.110	5	1	69.2	15	650
Z2SMB100	HP	94V ± 06	200	+0.110	5	1	76	13	600
Z2SMB110	HQ	104V ± 16	250	+0.110	5	1	83.5	12	550
Z2SMB120	HR	114V ± 27	250	+0.110	5	1	91.2	11	500
Z2SMB130	HS	124V ± 41	300	+0.110	5	1	98.2	10	460
Z2SMB150	HT	138V ± 56	300	+0.110	5	1	114	9	400
Z2SMB160	HU	153V ± 71	350	+0.110	5	1	122	8.5	375
Z2SMB180	HV	168V ± 91	350	+0.110	5	1	137	8.0	330
Z2SMB200	HW	188V ± 12	350	+0.110	5	1	152	7.5	300

(1) Tested with pulses.

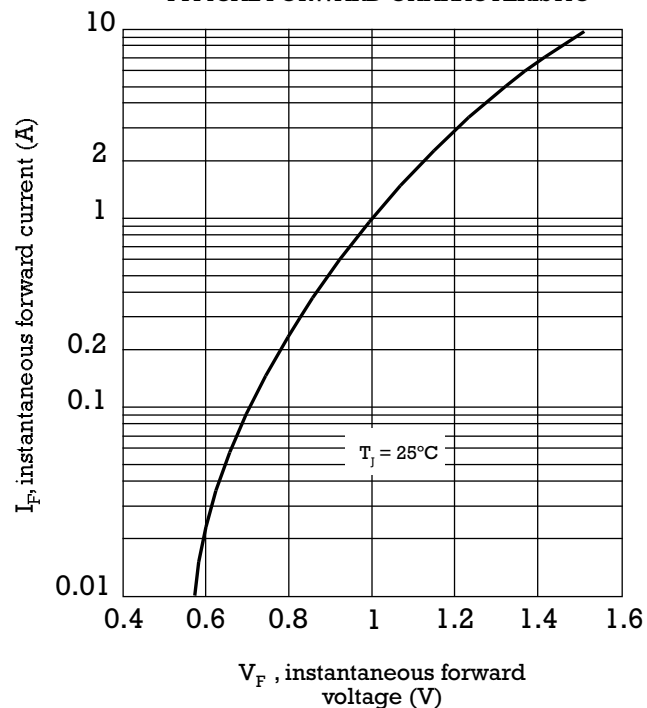
Pulse test: $t_p \leq 50$ ms; $d < 2\%$

Rating And Characteristic Curves

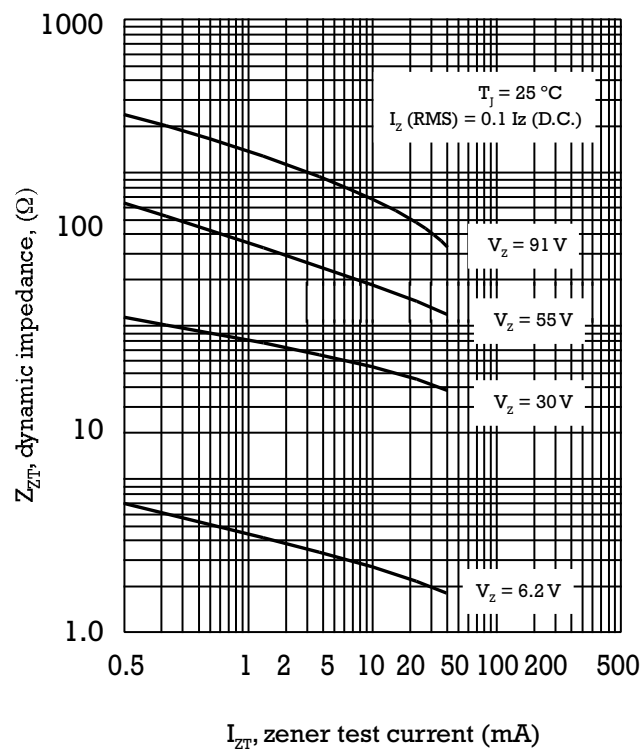
MAXIMUM CONTINUOUS POWER DISSIPATION



TYPICAL FORWARD CHARACTERISTIC



TYPICAL ZENER IMPEDANCE



TYPICAL REVERSE CHARACTERISTIC

