

## 2.0 W Surface Mounted Glass Passivated Zener Diode

<p><b>Dimensions in mm.</b></p> <p><b>CASE:</b> SMB/DO-214AA</p> <p>Week code F4 I2 G Year code Type No. Closs</p> <p>Standard soldering pad</p>	<p><b>Voltage</b> 6.2 to 200 V</p> <p><b>Power</b> 2.0 W</p> <ul style="list-style-type: none"> <li>• Glass passivated junction</li> <li>• The plastic material carries UL 94 V-0</li> <li>• Low profile package</li> <li>• Easy pick and place</li> <li>• High temperature soldering 260 °C 10 sec</li> </ul> <p><b>MECHANICAL DATA</b> Terminals: Solder plated, solderable per IEC 68-2-20. Standard Packaging: 8 mm. tape (EIA-RS-481). Weight: 0.093 g.</p>
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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 <sup>2</sup> x 130 μ Copper Area)	20 °C/W 60 °C/W

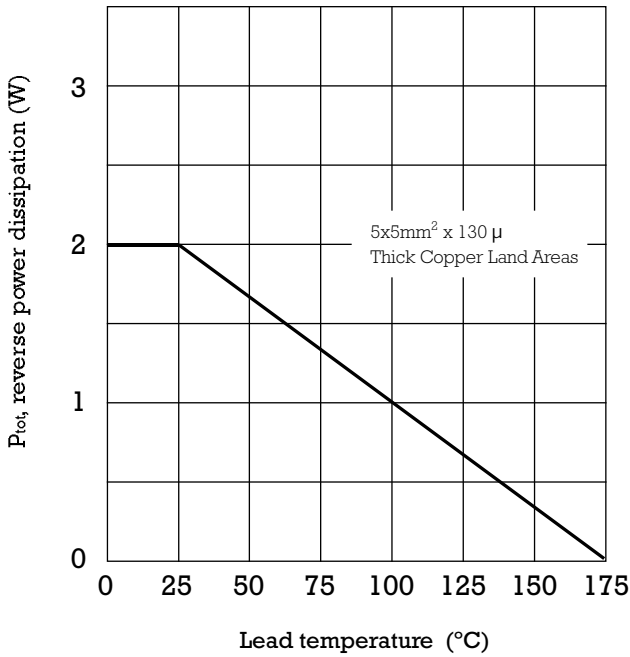
Other voltages upon request

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

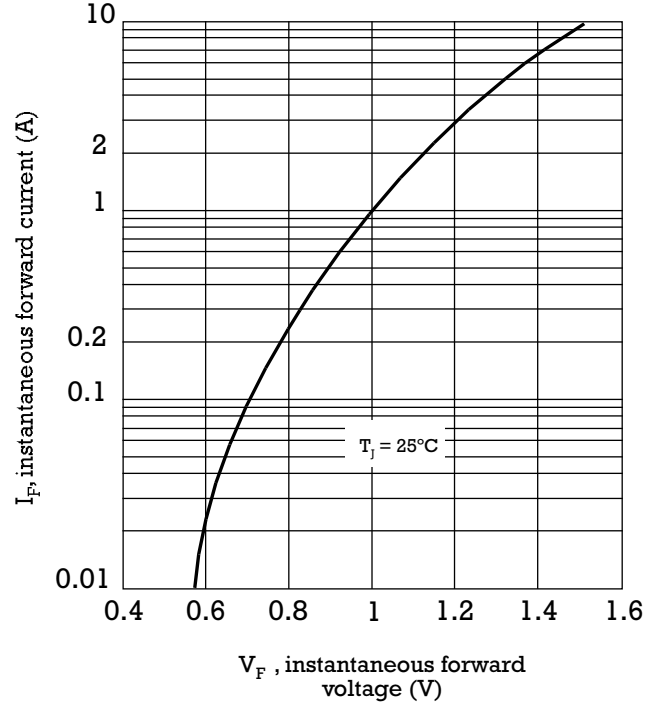
(1) Tested with pulses.  
Pulse test:  $t_p$  50 ms;  $< 2\%$

### Rating And Characteristic Curves

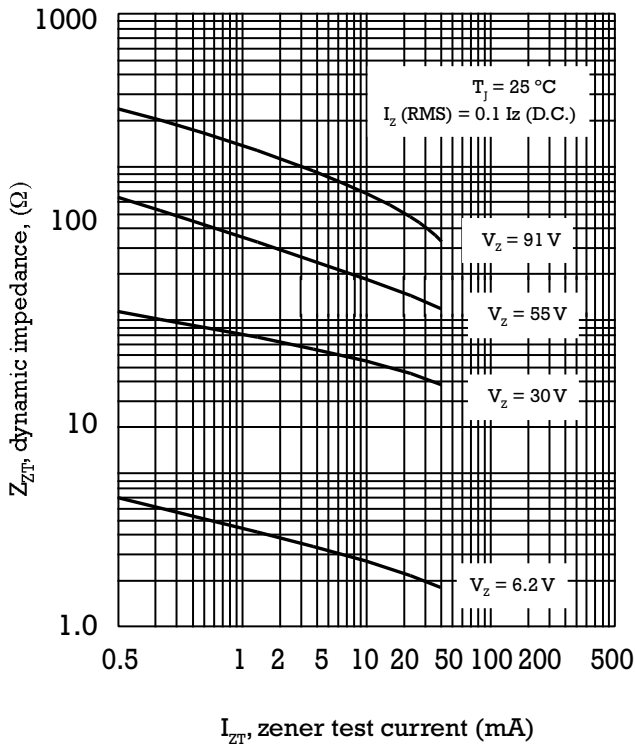
MAXIMUM CONTINUOUS POWER DISSIPATION



TYPICAL FORWARD CHARACTERISTIC



TYPICAL ZENER IMPEDANCE



TYPICAL REVERSE CHARACTERISTIC

