



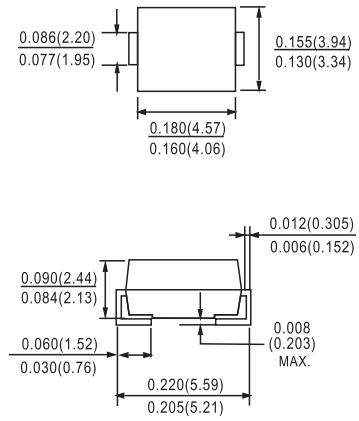
FEATURES

- Low profile package
- Built-in strain relief
- Low inductance
- Typical I<sub>0</sub> less than 1.0μA above 11V
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- High temperature soldering : 260°C /10 seconds at terminals
- Pb free product are available : 99% Sn can meet RoHS environment substance directive request

Mechanical Data

Case: JEDEC DO-214AA, Molded plastic over passivated junction  
 Terminals: Solder plated, solderable per MIL-STD-750, Method 2026  
 Polarity: Indicated by cathode band  
 Standard packing: 12mm tape (E1A-481)  
 Weight: 0.003 ounce, 0.093 gram

DO-214AA(SMB)



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	Value	Units
Peak Pulse Power Dissipation on TA=50°C (Notes A) Derate above 70°C	P <sub>D</sub>	3.0 24.0	Watts mW/°C
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	15	Amps
Operating Junction and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55 to + 150	°C

NOTES:

A.Mounted on 5.0mm<sup>2</sup> (.013mm thick) land areas.

B.Measured on 8.3ms, and single half sine-wave or equivalent square wave ,duty cycle=4 pulses per minute maximum



**TAYCHIPST**

GLASS PASSIVATED JUNCTION SILICON ZENER DIODES

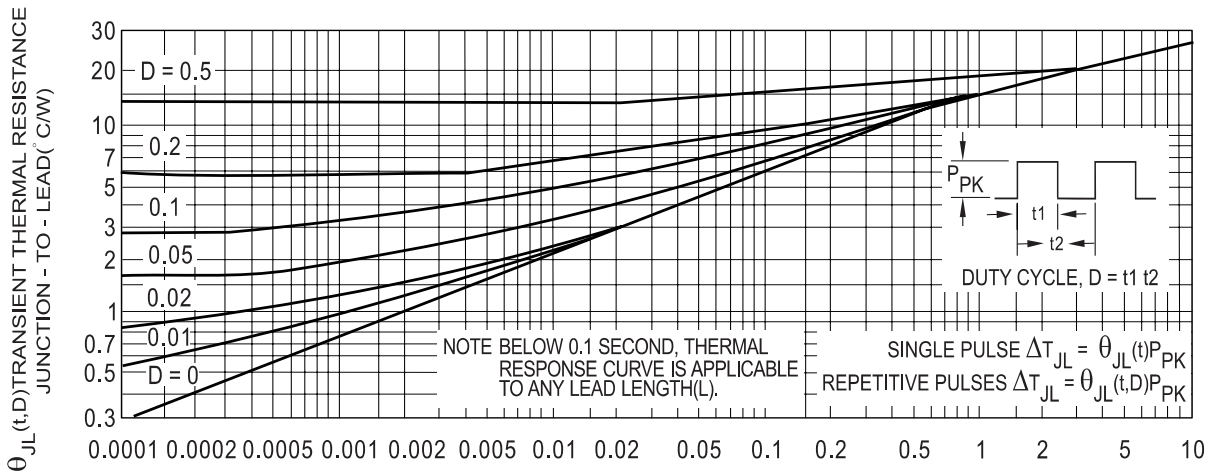
**SMB3EZ6.8 THRU SMB3EZ100**

6.8V-100V 7.5mA-110mA

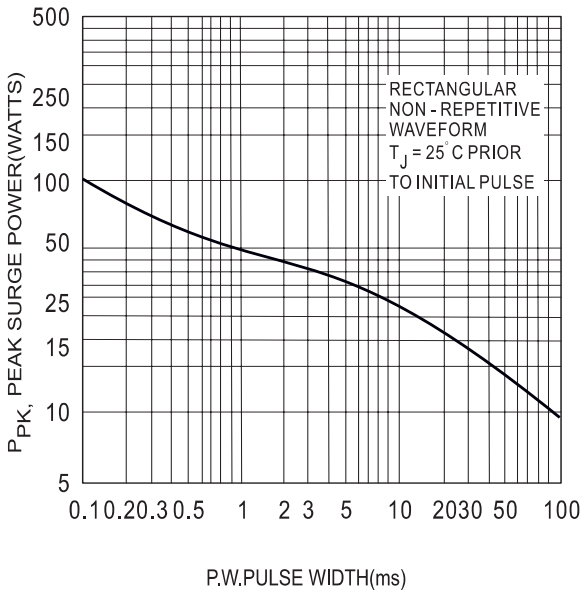
Part Number	Nominal Zener Voltage			Maximum Zener Impedance				Max. Reverse Leakage Current		Marking Code	Package
	V <sub>Z</sub> @ I <sub>ZT</sub>			Z <sub>ZT</sub> @ I <sub>ZT</sub>	I <sub>ZT</sub>	Z <sub>ZK</sub> @ I <sub>ZK</sub>	I <sub>ZK</sub>	I <sub>R</sub> @ V <sub>R</sub>			
	Nom. V	Min. V	Max. V	Ohms	mA	Ohms	mA	μA	V		
3.0 watt Zener Diodes											
SMB3EZ6.8	6.8	6.46	7.14	2	110.0	700	1.00	5.00	4.00	3006	SMB
SMB3EZ7.5	7.5	7.13	7.88	2	100.0	700	0.50	5.00	5.00	3007	SMB
SMB3EZ8.2	8.2	7.79	8.61	2	91.0	700	0.50	5.00	6.00	3008	SMB
SMB3EZ8.7	8.7	8.27	9.14	2	85.0	700	0.50	4.00	6.60	30A8	SMB
SMB3EZ9.1	9.1	8.65	9.56	3	82.0	700	0.50	3.00	7.00	3009	SMB
SMB3EZ10	10	9.50	10.50	4	75.0	700	0.25	3.00	7.60	3010	SMB
SMB3EZ11	11	10.45	11.55	4	68.0	700	0.25	1.00	8.40	3011	SMB
SMB3EZ12	12	11.40	12.60	5	63.0	700	0.25	1.00	9.10	3012	SMB
SMB3EZ13	13	12.35	13.65	5	58.0	700	0.25	0.50	9.90	3013	SMB
SMB3EZ14	14	13.30	14.70	6	53.0	700	0.25	0.50	10.60	3014	SMB
SMB3EZ15	15	14.25	15.75	7	50.0	700	0.25	0.50	11.40	3015	SMB
SMB3EZ16	16	15.20	16.80	8	47.0	700	0.25	0.50	12.20	3016	SMB
SMB3EZ17	17	16.15	17.85	9	44.0	750	0.25	0.50	13.00	3017	SMB
SMB3EZ18	18	17.10	18.90	10	42.0	750	0.25	0.50	13.70	3018	SMB
SMB3EZ19	19	18.05	19.95	11	40.0	750	0.25	0.50	14.40	3019	SMB
SMB3EZ20	20	19.00	21.00	11	37.0	750	0.25	0.50	15.20	3020	SMB
SMB3EZ22	22	20.90	23.10	12	34.0	750	0.25	0.50	16.70	3022	SMB
SMB3EZ24	24	22.80	25.20	13	31.0	750	0.25	0.50	18.20	3024	SMB
SMB3EZ25	25	23.75	26.25	14	30.0	750	0.25	0.50	19.00	3025	SMB
SMB3EZ27	27	25.65	28.35	18	28.0	750	0.25	0.50	20.60	3027	SMB
SMB3EZ28	28	26.60	29.40	18	27.0	750	0.25	0.50	21.30	3028	SMB
SMB3EZ30	30	28.50	31.50	20	25.0	1000	0.25	0.50	22.50	3030	SMB
SMB3EZ33	33	31.35	34.65	23	23.0	1000	0.25	0.50	25.10	3033	SMB
SMB3EZ36	36	34.20	37.80	25	21.0	1000	0.25	0.50	27.40	3036	SMB
SMB3EZ39	39	37.05	40.95	30	19.0	1000	0.25	0.50	29.70	3039	SMB
SMB3EZ43	43	40.85	45.15	35	17.0	1500	0.25	0.50	32.70	3043	SMB
SMB3EZ47	47	44.65	49.35	40	16.0	1500	0.25	0.50	35.70	3047	SMB
SMB3EZ51	51	48.45	53.55	48	15.0	1500	0.25	0.50	38.80	3051	SMB
SMB3EZ56	56	53.20	58.80	55	13.0	2000	0.25	0.50	42.60	3056	SMB
SMB3EZ60	60	57.00	63.00	58	12.5	2000	0.25	0.50	45.60	3060	SMB
SMB3EZ62	62	58.90	65.10	60	12.0	2000	0.25	0.50	47.10	3062	SMB
SMB3EZ68	68	64.60	71.40	75	11.0	2000	0.25	0.50	51.70	3068	SMB
SMB3EZ75	75	71.25	78.75	90	10.0	2000	0.25	0.50	56.00	3075	SMB
SMB3EZ82	82	77.90	86.10	100	9.1	3000	0.25	0.50	62.20	3082	SMB
SMB3EZ87	87	82.65	91.35	120	8.5	3000	0.25	0.50	66.10	3087	SMB
SMB3EZ91	91	86.45	95.55	125	8.2	3000	0.25	0.50	69.20	3091	SMB
SMB3EZ100	100	95.00	105.00	175	7.5	3000	0.25	0.50	76.00	3100	SMB

**RATINGS AND CHARACTERISTIC CURVES**

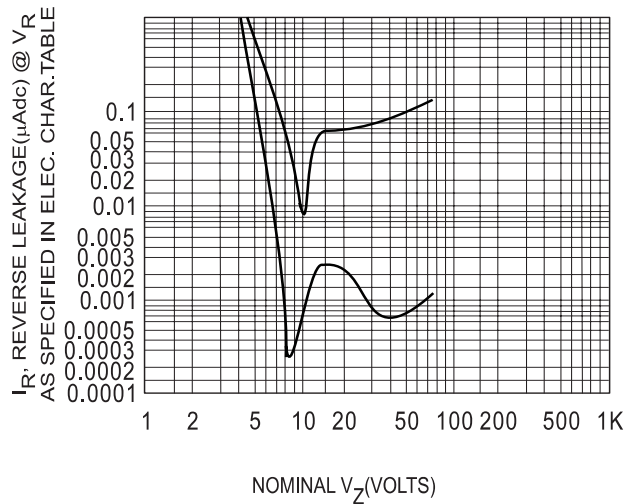
**SMB3EZ6.8 THRU SMB3EZ100**



**FIGURE 1. TYPICAL THERMAL RESPONSE L,**



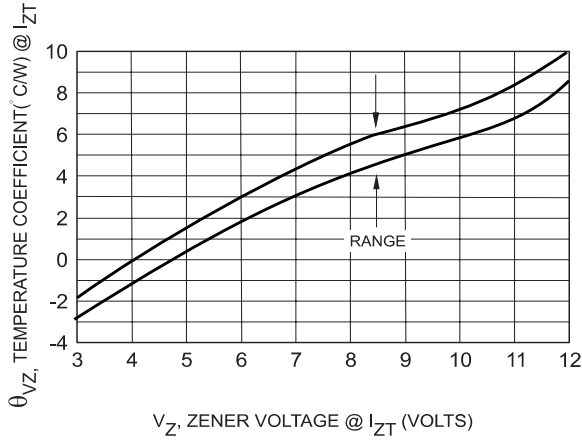
**FIGURE 2. MAXIMUM SURGE POWER**



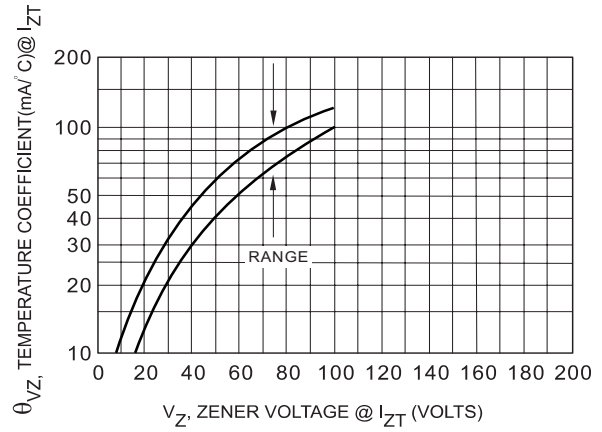
**FIGURE 3. TYPICAL REVERSE LEAKAGE**

**RATINGS AND CHARACTERISTIC CURVES**

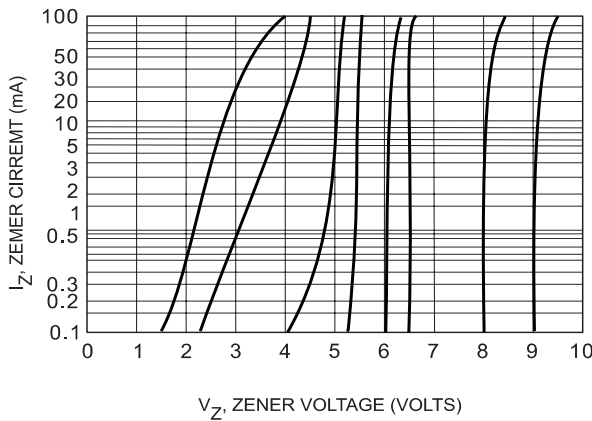
**SMB3EZ6.8 THRU SMB3EZ100**



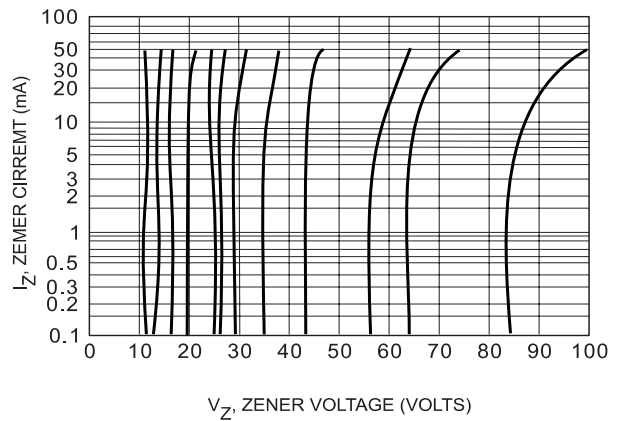
**FIGURE 4 . UNITS TO 12 VOLTS**



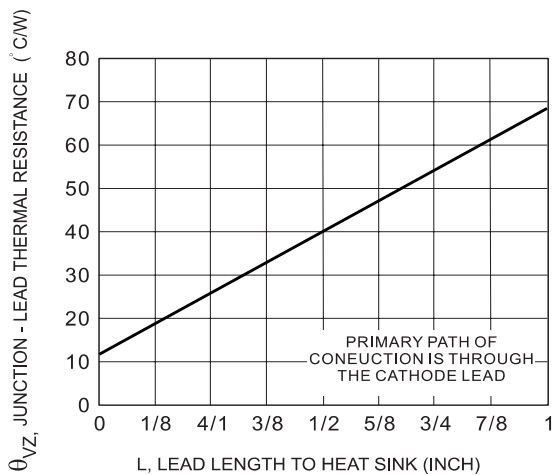
**FIGURE 5 . UNIT 10 TO 200 VOLTS**



**FIGURE 6.  $V_Z = 3.9$  THRU 10 VOLTS**



**FIGURE 7.  $V_Z = 12$  THRU 82 VOLTS**



**FIGURE 8 . TYPICAL THERMAL RESISTANCE**