Zener: 1.5AZ3.3 thru 1.5AZ68

Glass Passivated Zener

Features

- For surface mounted applications in order to optimize board space
- Low profile space
- Glass passivated chip
- High reliability
- Typical I_R less than 1μA at V_R
- For use in stabilizing and clipping circuits with high power rating

RoHS COMPLIANT

SMA (DO－214AC)

Mechanical Date

- **Case:** JEDEC DO-214AC molded plastic body over glass passivated chip
- **Terminals:** Solder plated, solderable per MIL-STD-750 Method 2026
- **Polarity:** types the band by laser denotes the cathode

Applications

- Voltage stabilization

Maximum Ratings & Thermal Characteristics

(T_A = 25 °C unless otherwise noted)

Items	Symbol	Value	UNIT
Power dissipation	P	1.5	W
Typical thermal resistance, junction to ambient(1)	$R_{\theta JA}$	120	°C / W
Typical thermal resistance, junction to lead(1)	$R_{\theta JL}$	28	°C / W
Junction temperature	T_J	150	℃
Storage temperature range	T_{STG}	–55 to +150	℃

Note 1: Mounted on P.C.B. with 0.2 x 0.2” (5.0 x 5.0mm) copper pad areas.

Zener: 1.5AZ3.3 thru 1.5AZ68
Glass Passivated Zener

Electrical Characteristics

T_A =25℃ unless otherwise noted, V_F=1.2VMax.@I_F=200mA for all types.

TYPE(2)	V_Z@I_{ZT}(V)			I_{ZT}	Z_{ZT}@I_{ZT}	Z_{ZK}@I_{ZK}		I_R@V_R		I_{ZM}	Marking Code
	Min	Nom	Max	mA	Ω	Ω	mA	μA	Volts	mA(dc)	
1.5AZ3.3	3.13	3.3	3.47	113.6	10.0	500	1	50	1.0	455	13B
1.5AZ3.6	3.42	3.6	3.78	104.2	9.0	500	1	35.5	1.0	417	14B
1.5AZ3.9	3.7	3.9	4.1	96.1	7.5	500	1	12.5	1.0	385	15B
1.5AZ4.3	4.08	4.3	4.52	87.2	6.0	500	1	2.5	1.0	349	16B
1.5AZ4.7	4.46	4.7	4.94	79.8	5.0	500	1	2.5	1.5	319	17B
1.5AZ5.1	4.84	5.1	5.36	73.5	4.0	350	1	2.5	2.0	294	18B
1.5AZ5.6	5.32	5.6	5.88	66.9	2.0	250	1	2.5	3.0	268	19B
1.5AZ6.2	5.89	6.2	6.51	60.5	2.0	200	1	2.5	4.0	242	20B
1.5AZ6.8	6.46	6.8	7.14	55.1	2.5	200	1	2.5	5.2	221	21B
1.5AZ7.5	7.12	7.5	7.88	50	3.0	400	0.5	2.5	6.0	200	22B
1.5AZ8.2	7.79	8.2	8.61	45.7	3.5	400	0.5	2.5	6.5	183	23B
1.5AZ9.1	8.64	9.1	9.56	41.2	4.0	500	0.5	2.5	7.0	165	24B
1.5AZ10	9.50	10	10.5	37.5	4.5	500	0.25	2.5	8.0	150	25B
1.5AZ11	10.45	11	11.55	34.1	5.5	550	0.25	1	8.4	136	26B
1.5AZ12	11.40	12	12.6	31.2	6.5	550	0.25	1	9.1	125	27B
1.5AZ13	12.35	13	13.65	28.8	7.0	550	0.25	1	9.9	115	28B
1.5AZ15	14.25	15	15.75	25.0	9.0	600	0.25	1	11.4	100	29B
1.5AZ16	15.20	16	16.8	23.4	10.0	600	0.25	1	12.2	94	30B
1.5AZ18	17.10	18	18.9	20.8	12.0	650	0.25	1	13.7	83	31B
1.5AZ20	19.00	20	21.0	18.7	14.0	650	0.25	1	15.2	75	32B
1.5AZ22	20.90	22	23.1	17.0	17.5	650	0.25	1	16.7	68	33B
1.5AZ24	22.80	24	25.2	15.6	19	700	0.25	1	18.2	63	34B
1.5AZ27	25.65	27	28.35	13.9	23	700	0.25	1	20.6	56	35B
1.5AZ30	28.50	30	31.50	12.5	26	750	0.25	1	22.8	50	36B
1.5AZ33	31.35	33	34.65	11.4	33	800	0.25	1	25.1	45	37B
1.5AZ36	34.20	36	37.80	10.4	38	850	0.25	1	27.4	42	38B
1.5AZ39	37.05	39	40.95	9.6	45	900	0.25	1	29.7	38	39B
1.5AZ43	40.85	43	45.15	8.7	53	950	0.25	1	32.7	35	40B
1.5AZ47	44.65	47	49.35	8.0	67	1000	0.25	1	35.8	32	41B
1.5AZ51	48.45	51	53.55	7.3	70	1100	0.25	1	38.8	29	42B
1.5AZ56	53.20	56	58.80	6.7	86	1300	0.25	1	42.6	27	43B
1.5AZ62	58.90	62	65.10	6.0	100	1500	0.25	1	47.1	24	44B
1.5AZ68	64.60	68	71.40	5.5	120	1700	0.25	1	51.7	22	45B

Note 2: TOLERANCE AND TYPE NUMBER DESIGNATION

The type numbers listed indicate a tolerance of ±5%. Other Zener voltages andtolerances are available upon request.

Fig. 1 - Steady State Power Derating

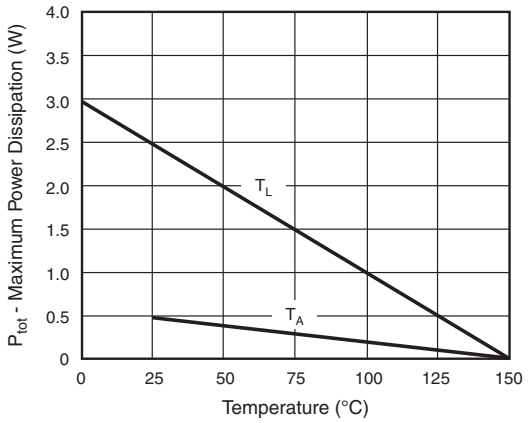


Fig. 3 - Typical Zener Voltage

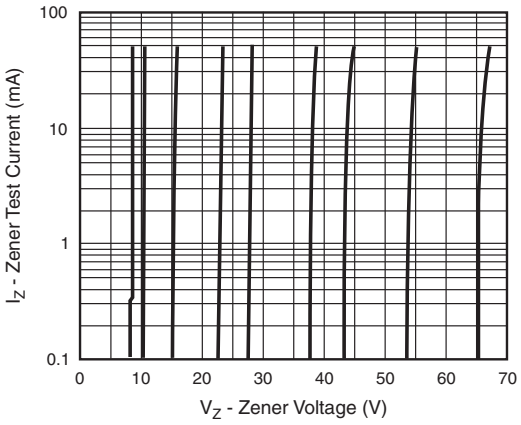
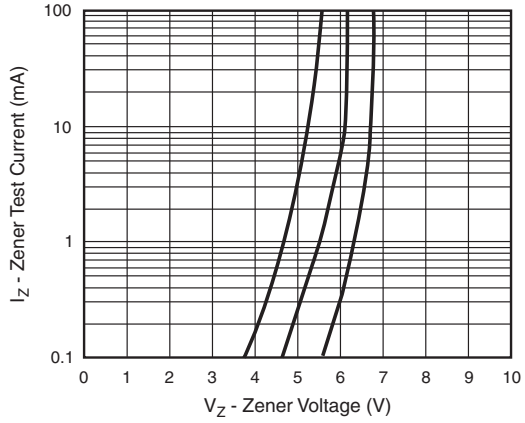
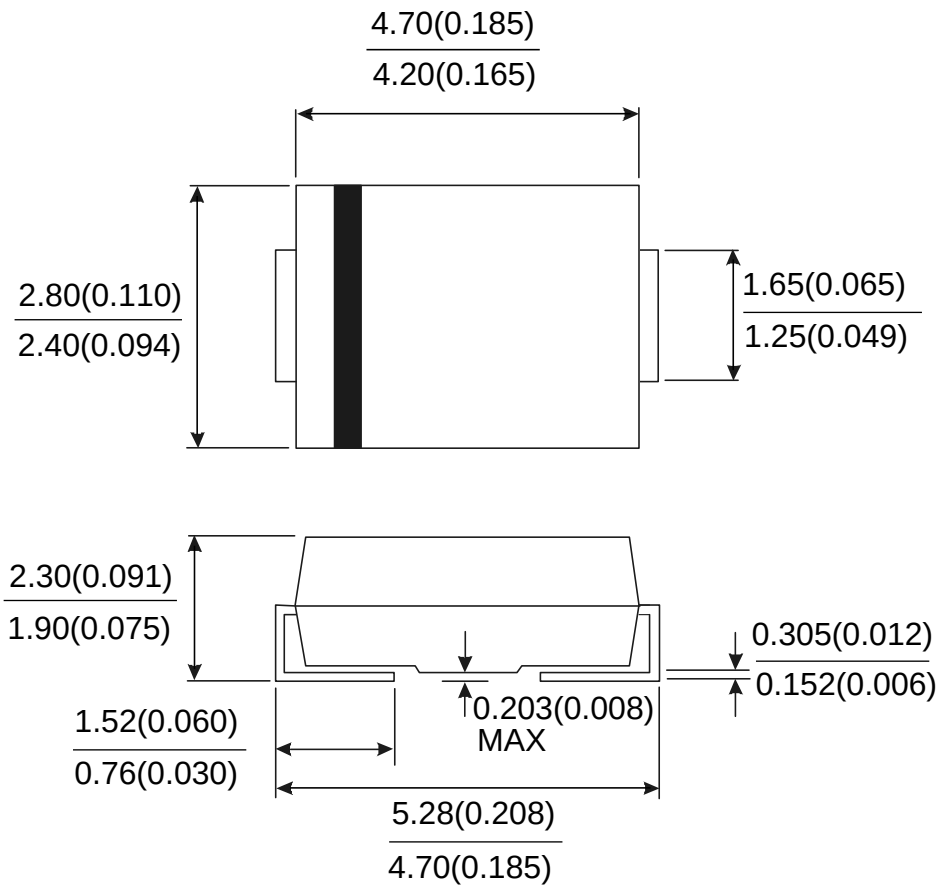


Fig. 2 - Typical Zener Voltage



Package Outline

SMA



Notice

- Product is intended for use in general electronics applications.
- Product should be worked less than the ratings; if exceeded, may cause permanent damage.or introduce latent failure mechanisms.
- The absolute maximum ratings are rated values and must not be exceeded during operation. The following are the general derating methods you design a circuit with a device.

  $I_{F(AV)}$: We recommend that the worst case current be no greater than 80% .

  I_{FSM} : This rating specifies the non-repetitive peak current. This is only applied for an abnormal operation, which the general during the lifespan of the device.

  T_J : Derate this rating when using a device in order to ensure high reliability. We recommend that the device be used at a T_J of below 125°C.