Zener: SMAZ3.3 thru SMAZ100

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.
- Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC

SMA (DO – 214AC)

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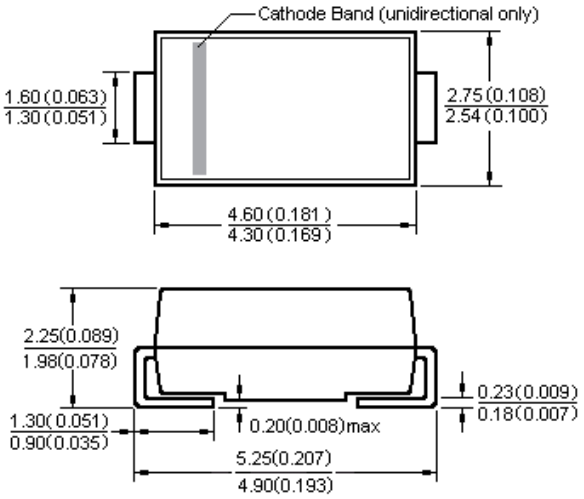

Dimentsions in millimeters and (inchs)

Mechanical Date

- Case: JEDEC DO-214AC molded plastic over 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

(TA = 25 °C unless otherwise noted)

	Symbol	VALUE	UNIT
power dissipation	P	1	W
Typical thermal resistance, junction to ambient	$R_{\theta JA}$	90	°C / W
Typical thermal resistance, junction to lead	$R_{\theta JL}$	30	°C / W
Junction temperature	TJ	150	°C
storage temperature range	T_{STG}	–55 to +150	°C

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Electrical Characteristics

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

DEVICE House No.(1)	Zener Voltage				Zener Impedance			Leakage Current		I_{ZM}
	V_Z(Volts)			@I_{ZT}	Z_{ZT}@I_{ZT}	Z_{ZK}@I_{ZK}		I_R@V_R		
	Min	Nom	Max	mA	Ω	Ω	mA	uA	Volts	mA(dc)
SMAZ3V3	3.13	3.3	3.47	76	10	400	1.0	100	1.0	276
SMAZ3V6	3.42	3.6	3.78	69	10	400	1.0	100	1.0	252
SMAZ3V9	3.70	3.9	4.10	64	9	400	1.0	50	1.0	234
SMAZ4V3	4.08	4.3	4.52	58	9	400	1.0	10	1.0	217
SMAZ4V7	4.46	4.7	4.94	53	8	500	1.0	10	1.0	193
SMAZ5V1	4.84	5.1	5.36	49	7	550	1.0	10	1.0	178
SMAZ5V6	5.32	5.6	5.88	45	5	600	1.0	10	2.0	162
SMAZ6V2	5.89	6.2	6.51	41	2	700	1.0	10	3.0	146
SMAZ6V8	6.46	6.8	7.14	37	3.5	700	1.0	10	4.0	133
SMAZ7V5	7.12	7.5	7.88	34	4.0	700	0.5	10	5.0	121
SMAZ8V2	7.79	8.2	8.61	31	4.5	700	0.5	10	6.0	110
SMAZ9V1	8.64	9.1	9.56	28	5.0	700	0.5	10	7.0	100
SMAZ10	9.5	10	10.5	25	7	700	0.25	10	7.6	91
SMAZ11	10.45	11	11.55	23	8	700	0.25	1	8.4	83
SMAZ12	11.4	12	12.6	21	9	700	0.25	1	9.1	76
SMAZ13	12.35	13	13.65	19	10	700	0.25	1	9.9	69
SMAZ15	14.25	15	15.75	17	14	700	0.25	1	11.4	61
SMAZ16	15.2	16	16.8	15.5	16	700	0.25	1	12.2	57
SMAZ18	17.1	18	18.9	14	20	750	0.25	1	13.7	50
SMAZ20	19	20	21	12.5	22	750	0.25	1	15.2	45
SMAZ22	20.9	22	23.1	11.5	23	750	0.25	1	16.7	41
SMAZ24	22.8	24	25.2	10.5	25	750	0.25	1	18.2	38
SMAZ27	25.65	27	28.35	9.5	35	750	0.25	1	20.6	34
SMAZ30	28.5	30	31.5	8.5	40	1000	0.25	1	22.8	30
SMAZ33	31.35	33	34.65	7.5	45	1000	0.25	1	25.1	27
SMAZ36	34.2	36	37.8	7.0	50	1000	0.25	1	27.4	25
SMAZ39	37.05	39	40.95	6.5	60	1000	0.25	1	29.7	23
SMAZ43	40.85	43	45.15	6.0	70	1500	0.25	1	32.7	22
SMAZ47	44.65	47	49.35	5.5	80	1500	0.25	1	35.8	19
SMAZ51	48.45	51	53.55	5.0	95	1500	0.25	1	38.8	18
SMAZ56	53.2	56	58.8	4.5	110	2000	0.25	1	42.6	16
SMAZ62	58.9	62	65.1	4.0	125	2000	0.25	1	47.1	14
SMAZ68	64.6	68	71.4	3.7	150	2000	0.25	1	51.7	13
SMAZ75	71.25	75	78.75	3.3	175	2000	0.25	1	56.0	12
SMAZ82	77.9	82	86.1	3.0	200	3000	0.25	1	62.2	11
SMAZ91	86.45	91	95.55	2.8	250	3000	0.25	1	69.2	10
SMAZ100	95	100	105	2.5	350	3000	0.25	1	76.0	9

1. TOLERANCE AND TYPE NUMBER DESIGNATION

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

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Glass Passivated Zener

Characteristic Curves (T_A=25 ℃ unless otherwise noted)

Fig.1--Steady State Power Derating

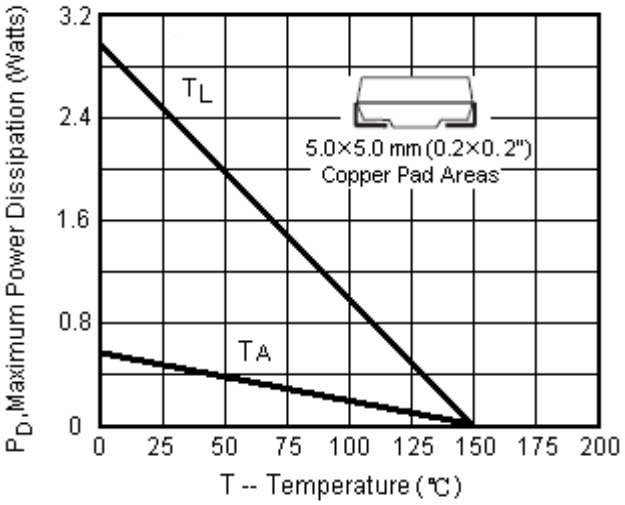

Fig.2--Vz-3.3 Thru 10 Volts

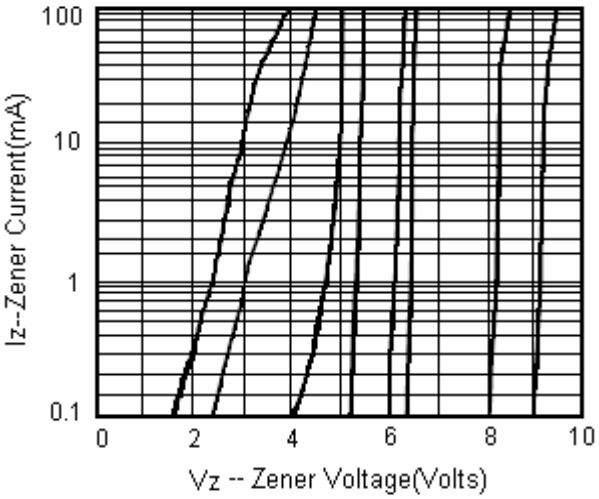

Fig.3 -- Vz-12 Thru 68 Volts

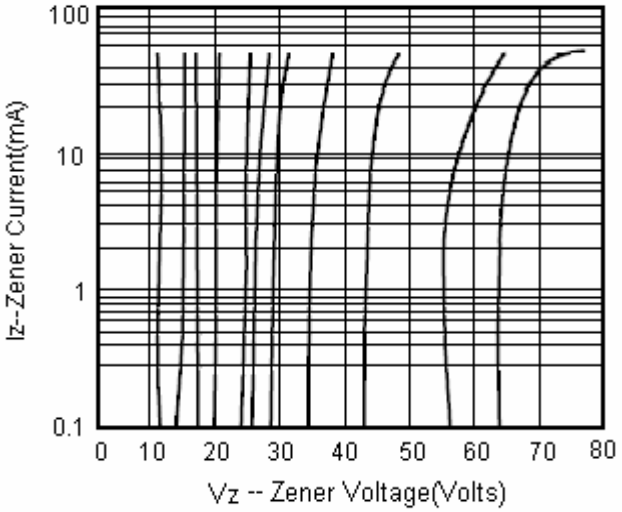

Fig.4--Zener Voltage-3.3 to 12 Volts

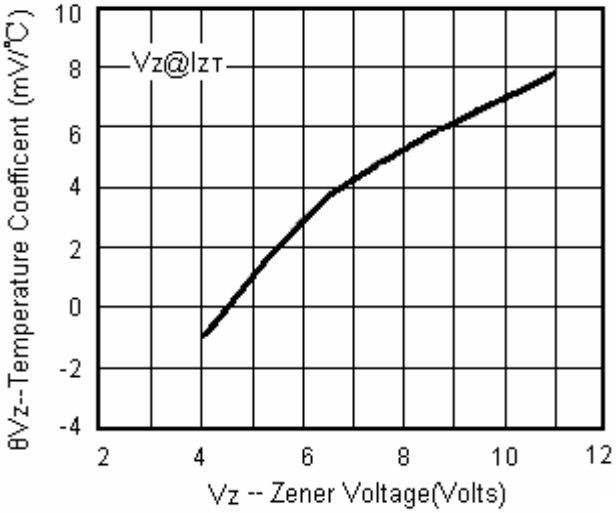

Fig.5--Zener Voltage-14 to 68 Volts

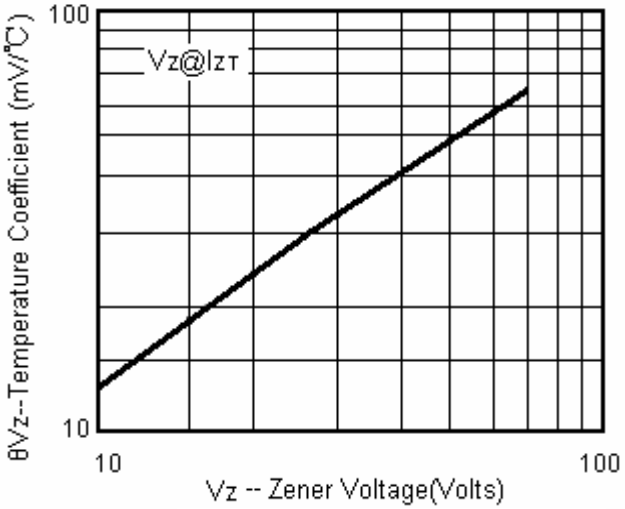

Fig.6--Effect Of Zener Voltage