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SMAZXX-TP Series
Silicon Planar Zener Diodes

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FEATURES

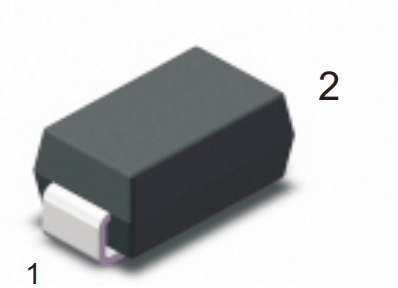
- Total power dissipation: Max. 1.5 W.
- Wide zener reverse voltage range 3.6V to 200V.
- Small plastic package suitable for surface mounted design.

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode

MECHANICAL DATA

- Case: SMA
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.055g / 0.002oz



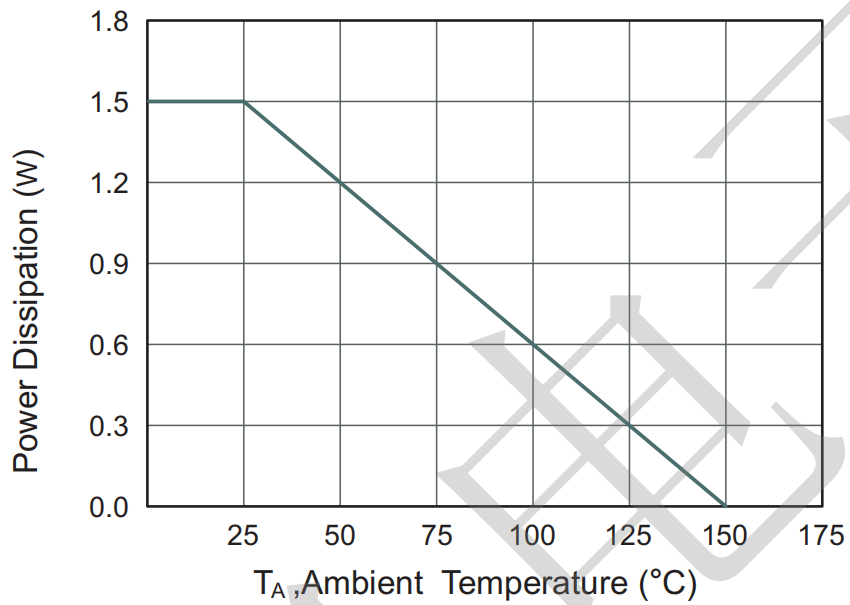
Top View
Simplified outline SMA and symbol

Absolute Maximum Ratings And Characteristics Ta = (25°C)

Parameter	Symbol	Value	Unit
Power Dissipation at T_A=25°C	P_D	1.5	W
Forward Voltage at I_F= 200 mA	V_F	1.5	V
Junction Temperature Range	T_J	- 55 ~ + 150	°C
Storage Temperature Range	T_S	- 55 to + 150	°C
Typical Thermal Resistance (1)	$R_{\theta JA}$ $R_{\theta JC}$ $R_{\theta JL}$	100 20 25	°C/W

(1) P.C.B. mounted with 0.2" X 0.2" (5 X 5 mm) copper pad areas.

Fig.1 Maximum Continuous Power Derating



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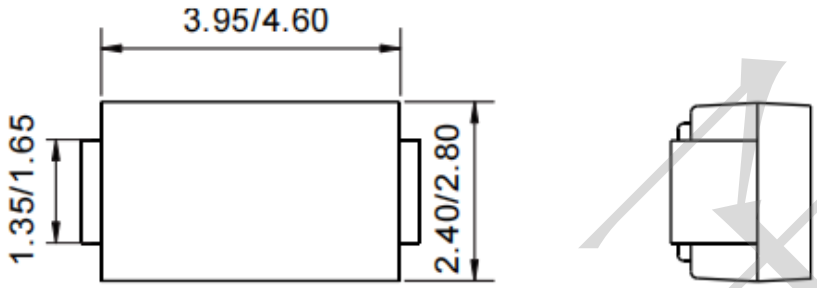
Characteristics at T_a= 25°C

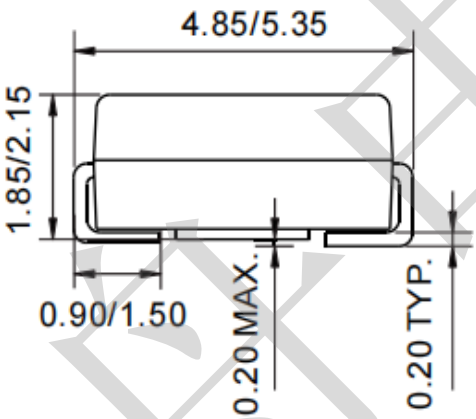
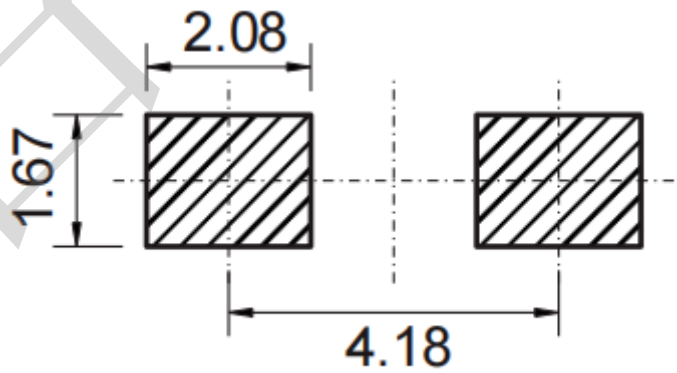
Type	Marking	Zener Voltage Range (1)			I_{ZT}	Dynamic Impedance	Reverse Current		Admissible Zener Current
		V_{ZT} (at I_{ZT})				Z_{ZT} (at I_{ZT})	I_R	at V_R	
		Min (V)	Nom (V)	Max (V)	(mA)	Max (Ω)	Max (μA)	(V)	I_{ZM} (mA)
SMAZ3V6-TP	814B	3.42	3.6	3.78	104.2	9.0	75	1	416
SMAZ3V9-TP	815B	3.70	3.9	4.10	96.1	7.5	25	1	384
SMAZ4V3-TP	816B	4.08	4.3	4.52	87.2	6.0	5	1	348
SMAZ4V7-TP	817B	4.46	4.7	4.94	79.8	5.0	5	1.5	319
SMAZ5V1-TP	818B	4.84	5.1	5.36	73.5	4.0	5	2	294
SMAZ5V6-TP	819B	5.32	5.6	5.88	66.9	2.0	5	3	267
SMAZ6V2-TP	820B	5.89	6.2	6.51	60.5	2.0	5	4	241
SMAZ6V8-TP	821B	6.46	6.8	7.14	55	2.5	5	5.2	220
SMAZ7V5-TP	822B	7.12	7.5	7.88	50	3.0	5	6	200
SMAZ8V2-TP	823B	7.79	8.2	8.61	45.7	3.5	5	6.5	182
SMAZ9V1-TP	824B	8.60	9.1	9.56	41.2	4.0	5	7	164
SMAZ10-TP	825B	9.50	10	10.5	37.5	4.5	5	8	150
SMAZ11-TP	826B	10.4	11	11.6	34	5.5	1	8.4	136
SMAZ12-TP	827B	11.4	12	12.6	31.2	6.5	1	9	125
SMAZ13-TP	828B	12.35	13	14.1	28.8	7.0	1	9.9	115
SMAZ15-TP	829B	13.8	15	15.8	25	9.0	1	11.4	100
SMAZ16-TP	830B	15.2	16	16.8	23.4	10	1	12.2	93
SMAZ18-TP	831B	16.8	18	19.2	21	12	1	13.7	83
SMAZ20-TP	832B	19.0	20	21.2	19	14	1	15.2	75
SMAZ22-TP	833B	20.8	22	23.3	17	18	1	16.7	68
SMAZ24-TP	834B	22.8	24	25.2	16	19	1	18.2	62
SMAZ27-TP	835B	25.3	27	28.9	14	23	1	20.6	55
SMAZ30-TP	836B	28.2	30	32.0	12.5	26	1	23	50
SMAZ33-TP	837B	31.3	33	34.9	11.4	33	1	25	45
SMAZ36-TP	838B	34.2	36	37.9	10.4	38	1	27	41
SMAZ39-TP	839B	37.2	39	41.5	9.6	45	1	30	38
SMAZ43-TP	840B	40.9	43	45.6	8.7	53	1	33	34
SMAZ47-TP	841B	44.9	47	49.8	8.0	67	1	36	31
SMAZ51-TP	842B	48.6	51	54.0	7.3	70	1	39	29
SMAZ56-TP	843B	53.6	56	58.8	6.7	86	1	42	26
SMAZ62-TP	844B	58.9	62	65.6	6.0	100	1	47	24
SMAZ68-TP	845B	64.6	68	71.7	5.5	120	1	52	22
SMAZ75-TP	846B	71.2	75	78.8	5.0	140	1	57	20
SMAZ82-TP	847B	77.9	82	87.0	4.6	160	1	62	18
SMAZ91-TP	848B	86.0	91	96.0	4.1	200	1	69	16
SMAZ100-TP	849B	95.0	100	105	3.7	250	1	76	15
SMAZ110-TP	850B	104	110	116	3.4	300	1	84	13
SMAZ120-TP	851B	114	120	127	3.1	380	1	91	12
SMAZ130-TP	852B	125	130	142	2.9	450	1	100	11
SMAZ150-TP	853B	140	150	157	2.5	600	1	114	10
SMAZ160-TP	854B	152	160	168	2.3	700	1	121.6	9.0
SMAZ180-TP	855B	168	180	189	2.1	900	1	136.8	8.0
SMAZ200-TP	856B	189	200	211	1.9	1200	1	152	7.0

(1) V_{ZT} is tested with pulses (20 ms)

Package Outline Dimensions (unit:mm)

SMA





Mounting Pad Layout (unit: mm)