

Zener Diodes

U1ZA5.1 - U1ZA390

Features

- Silicon planar power ,zener diodes
- For use in stabilizing and clipping circuits with high
- Standard zener voltage tolerance is $\pm 5\%$.
- RoHS compliant with Halogen-free

HF



Mechanical Data

- Case: SMA molded plastic
- Molding compound, UL flammability classification rating 94V-0
- Terminals: Solder plated, solderable per MIL- STD-202,Method 208
- Polarity: Color band denotes cathode end

Maximum Ratings (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Value	Unit
Power dissipation at $T_A = 25^\circ\text{C}$	P_{tot}	1.0	W
Maximum instantaneous forward voltage	V_F	1.15	V
Junction temperature	T_J	-40 ~ +150	$^\circ\text{C}$
Storage temperature range	T_{STG}	-40 ~ +150	$^\circ\text{C}$

Note*1: Valid provided that leads at a distance of 10 mm from case are kept at ambient temperature.

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Electrical Characteristics (@T_A = 25°C unless otherwise specified)

Part Number	Device Marking Code	PD	Zener Voltage Range				Leakage Current		
			V _Z (V)			@I _{ZT}	I _R @V _R		
			Min	Nom	Max	mA	uA	V	
U1ZA5.1	ZA5.1	1000	4.85	5.1	5.36	10	10	3.0	
U1ZA5.6	ZA5.6	1000	5.32	5.6	5.88	10	10	3.0	
U1ZA6.8	ZA6.8	1000	6.46	6.8	7.14	10	10	3.0	
U1ZA7.5	ZA7.5	1000	7.12	7.5	7.87	10	10	4.5	
U1ZA8.2	ZA8.2	1000	7.79	8.2	8.61	10	10	4.9	
U1ZA9.1	ZA9.1	1000	8.64	9.1	9.55	10	10	5.5	
U1ZA10	ZA10	1000	9.5	10	10.5	10	10	6.0	
U1ZA11	ZA11	1000	10.4	11	11.5	10	10	7.0	
U1ZA12	ZA12	1000	11.1	12	12.6	10	10	8.0	
U1ZA13	ZA13	1000	12.3	13	13.6	10	10	9.0	
U1ZA15	ZA15	1000	14.2	15	15.7	10	10	10.0	
U1ZA16	ZA16	1000	15.2	16	16.8	10	10	11.0	
U1ZA18	ZA18	1000	17.1	18	18.9	10	10	13.0	
U1ZA20	ZA20	1000	19.0	20	21.0	10	10	14.0	
U1ZA21	ZA21	1000	20.0	21	22.0	10	10	14.7	
U1ZA22	ZA22	1000	20.9	22	23.1	10	10	16.0	
U1ZA24	ZA24	1000	22.8	24	25.2	10	10	17.0	
U1ZA25	ZA25	1000	23.8	25	26.3	10	10	17.8	
U1ZA27	ZA27	1000	25.6	27	28.3	10	10	19.0	
U1ZA30	ZA30	1000	28.5	30	31.5	10	10	21.0	
U1ZA33	ZA33	1000	31.3	33	34.6	10	10	26.4	
U1ZA36	ZA36	1000	34.2	36	37.8	9	10	28.8	
U1ZA39	ZA39	1000	37	39	40.9	9	10	31.2	
U1ZA43	ZA43	1000	40.8	43	45.1	7	10	34.4	
U1ZA47	ZA47	1000	44.6	47	49.3	6	10	37.6	
U1ZA51	ZA51	1000	48.4	51	53.5	6	10	40.8	
U1ZA68	ZA68	1000	64.6	68	71.4	4	10	54.4	
U1ZA75	ZA75	1000	71.2	75	78.7	4	10	60.0	
U1ZA82	ZA82	1000	77.9	82	86.1	3	10	65.4	
U1ZA100	100	1000	95	100	105	3	10	80.0	
U1ZA110	110	1000	104	110	115	3	10	88.0	
U1ZA150	150	1000	142	150	157	2	10	120.0	
U1ZA180	180	1000	171	180	189	1.5	10	144.0	
U1ZA200	200	1000	190	200	210	1.5	10	160.0	
U1ZA200-Y	200Y	1000	190	200	210	1.5	10	160.0	

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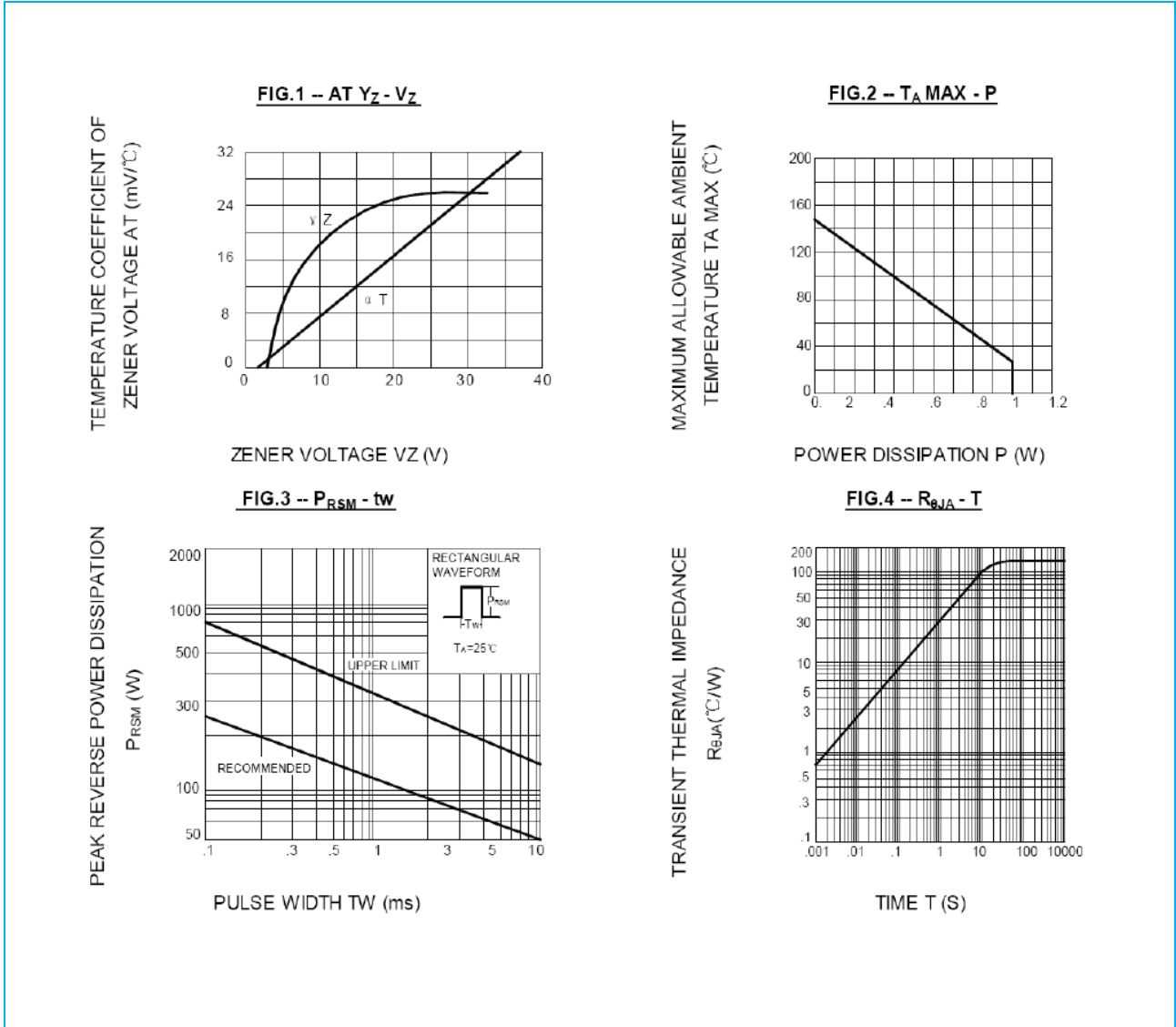
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Part Number	Device Marking Code	PD	Zener Voltage Range				Leakage Current		
			V _Z (V)			@I _{ZT}	I _R @V _R		
			Min	Nom	Max	mA	uA	V	
U1ZA200-Z	200Z	1000	199	210	220	1.5	10	168.0	
U1ZA220	220	1000	209	220	231	0.5	10	176	
U1ZA220-Y	220Y	1000	209	220	231	0.5	10	176	
U1ZA220-Z	220Z	1000	218	230	241	0.5	10	184	
U1ZA240	240	1000	228	240	252	0.5	10	192	
U1ZA240-Y	240Y	1000	228	240	252	0.5	10	216	
U1ZA240-Z	240Z	1000	237	250	262	0.5	10	225	
U1ZA270	270	1000	256	270	283	0.5	10	216	
U1ZA270-X	270X	1000	247	260	273	0.5	10	234	
U1ZA270-Y	270Y	1000	256	270	283	0.5	10	243	
U1ZA270-Z	270Z	1000	266	280	294	0.5	10	252	
U1ZA300	300	1000	285	300	315	0.5	10	240	
U1ZA300-X	300X	1000	297	290	304	0.5	10	261	
U1ZA300-Y	300Y	1000	285	300	315	0.5	10	270	
U1ZA300-Z	300Z	1000	294	310	325	0.5	10	279	
U1ZA330	330	1000	313	330	346	0.5	10	264	
U1ZA330-X	330X	1000	304	320	336	0.5	10	288	
U1ZA330-Y	330Y	1000	313	330	346	0.5	10	294	
U1ZA330-Z	330Z	1000	323	340	357	0.5	10	306	
U1ZA390	390	1000	370	390	409	0.5	10	312	

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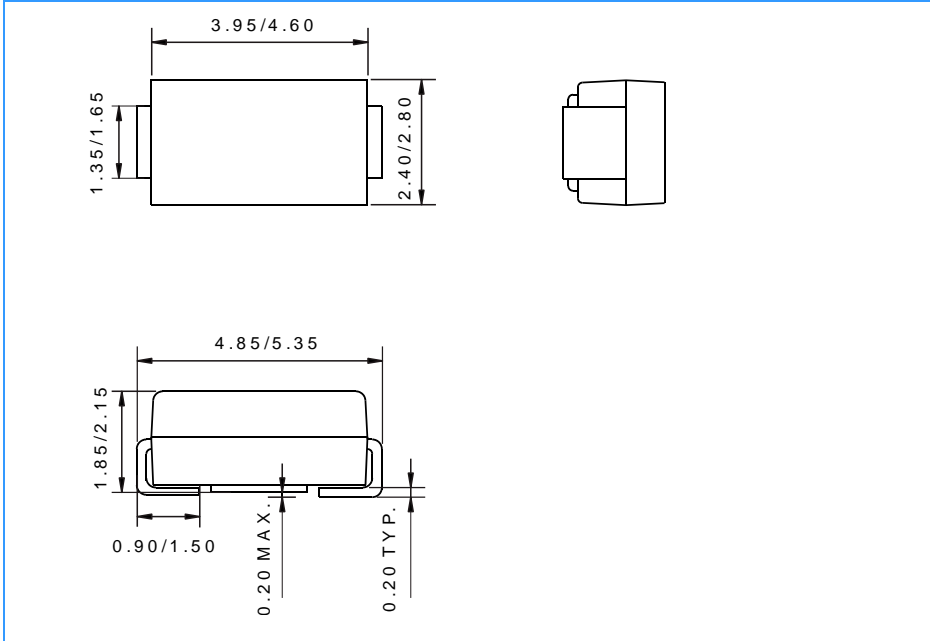
Ratings and Characteristic Curves (@ $T_A=25^\circ\text{C}$ unless otherwise noted)



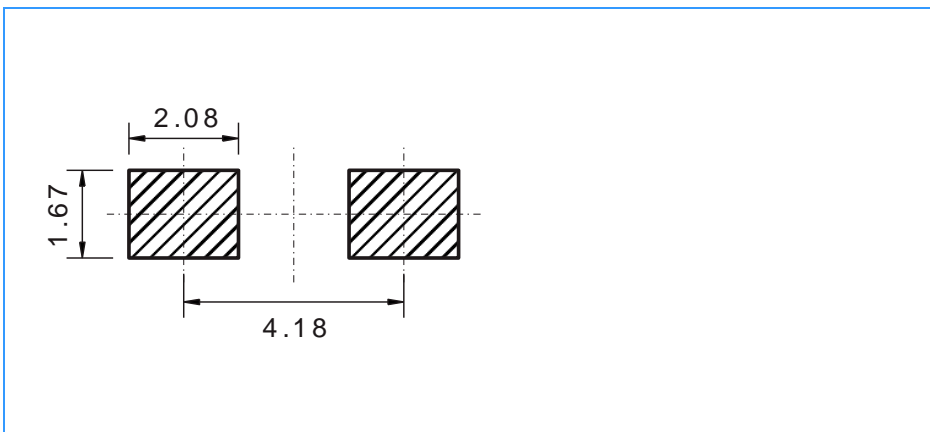
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Package Outline Dimensions (Unit: mm)



Mounting Pad Layout (Unit: mm)



Ordering Information

Part Number	Package	Shipping Quantity
U1ZA5.1 - U1ZA390	SMA	5000 / Tape & Reel