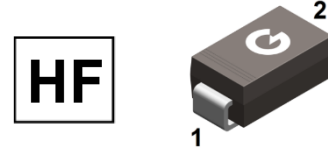


Zener Diodes

TU1ZA5.1 - TU1ZA390

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
- Qualified to AEC-Q101 Standards



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°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Power dissipation at T _A = 25°C	P _{tot}	1.0	W
Maximum instantaneous forward voltage	V _F	1.15	V
Junction temperature	T _J	-40 ~ +150	°C
Storage temperature range	T _{STG}	-40 ~ +150	°C

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

Zener Diodes

TU1ZA5.1 - TU1ZA390

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	
		mW	Min	Nom	Max	mA	uA	V
TU1ZA5.1	ZA5.1	1000	4.85	5.1	5.36	10	10	3.0
TU1ZA5.6	ZA5.6	1000	5.32	5.6	5.88	10	10	3.0
TU1ZA6.8	ZA6.8	1000	6.46	6.8	7.14	10	10	3.0
TU1ZA7.5	ZA7.5	1000	7.12	7.5	7.87	10	10	4.5
TU1ZA8.2	ZA8.2	1000	7.79	8.2	8.61	10	10	4.9
TU1ZA9.1	ZA9.1	1000	8.64	9.1	9.55	10	10	5.5
TU1ZA10	ZA10	1000	9.5	10	10.5	10	10	6.0
TU1ZA11	ZA11	1000	10.4	11	11.5	10	10	7.0
TU1ZA12	ZA12	1000	11.1	12	12.6	10	10	8.0
TU1ZA13	ZA13	1000	12.3	13	13.6	10	10	9.0
TU1ZA15	ZA15	1000	14.2	15	15.7	10	10	10.0
TU1ZA16	ZA16	1000	15.2	16	16.8	10	10	11.0
TU1ZA18	ZA18	1000	17.1	18	18.9	10	10	13.0
TU1ZA20	ZA20	1000	19	20	21	10	10	14.0
TU1ZA22	ZA22	1000	20.9	22	23.1	10	10	16.0
TU1ZA24	ZA24	1000	22.8	24	25.2	10	10	17.0
TU1ZA25	ZA25	1000	23.8	25	26.3	10	10	17.8
TU1ZA27	ZA27	1000	25.6	27	28.3	10	10	19.0
TU1ZA30	ZA30	1000	28.5	30	31.5	10	10	21.0
TU1ZA33	ZA33	1000	31.3	33	34.6	10	10	26.4
TU1ZA36	ZA36	1000	34.2	36	37.8	9	10	28.8
TU1ZA39	ZA39	1000	37	39	40.9	9	10	31.2
TU1ZA43	ZA43	1000	40.8	43	45.1	7	10	34.4
TU1ZA47	ZA47	1000	44.6	47	49.3	6	10	37.6
TU1ZA51	ZA51	1000	48.4	51	53.5	6	10	40.8
TU1ZA68	ZA68	1000	64.6	68	71.4	4	10	54.4
TU1ZA75	ZA75	1000	71.2	75	78.7	4	10	60.0
TU1ZA82	ZA82	1000	77.9	82	86.1	3	10	65.4
TU1ZA100	100	1000	95	100	105	3	10	80.0
TU1ZA110	110	1000	104	110	115	3	10	88.0
TU1ZA150	150	1000	142	150	157	2	10	120.0
TU1ZA180	180	1000	171	180	189	1.5	10	144.0
TU1ZA200	200	1000	190	200	210	1.5	10	160.0
TU1ZA200-Y	200Y	1000	190	200	210	1.5	10	160.0
TU1ZA200-Z	200Z	1000	199	210	220	1.5	10	168.0

Zener Diodes

TU1ZA5.1 - TU1ZA390

Part Number	Device Marking Code	PD	Zener Voltage Range				Leakage Current	
			V _Z (V)			@I _{ZT}	I _R @V _R	
		mW	Min	Nom	Max	mA	uA	V
TU1ZA220	220	1000	209	220	231	0.5	10	176
TU1ZA220-Y	220Y	1000	209	220	231	0.5	10	176
TU1ZA220-Z	220Z	1000	218	230	241	0.5	10	184
TU1ZA240	240	1000	228	240	252	0.5	10	192
TU1ZA240-Y	240Y	1000	228	240	252	0.5	10	216
TU1ZA240-Z	240Z	1000	237	250	262	0.5	10	225
TU1ZA270	270	1000	256	270	283	0.5	10	216
TU1ZA270-X	270X	1000	247	260	273	0.5	10	234
TU1ZA270-Y	270Y	1000	256	270	283	0.5	10	243
TU1ZA270-Z	270Z	1000	266	280	294	0.5	10	252
TU1ZA300	300	1000	285	300	315	0.5	10	240
TU1ZA300-X	300X	1000	297	290	304	0.5	10	261
TU1ZA300-Y	300Y	1000	285	300	315	0.5	10	270
TU1ZA300-Z	300Z	1000	294	310	325	0.5	10	279
TU1ZA330	330	1000	313	330	346	0.5	10	264
TU1ZA330-X	330X	1000	304	320	336	0.5	10	288
TU1ZA330-Y	330Y	1000	313	330	346	0.5	10	294
TU1ZA330-Z	330Z	1000	323	340	357	0.5	10	306
TU1ZA390	390	1000	370	390	409	0.5	10	312

Zener Diodes

TU1ZA5.1 - TU1ZA390

Ratings and Characteristic Curves (@T_A=25°C unless otherwise noted)

Fig.1 Power Dissipation

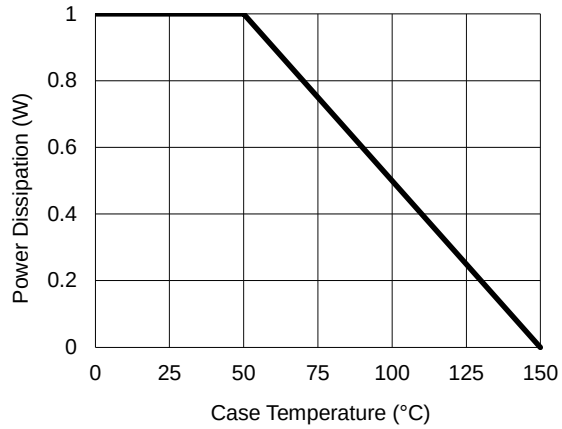
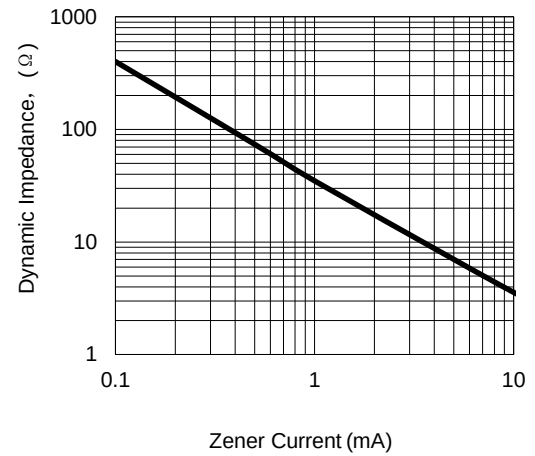


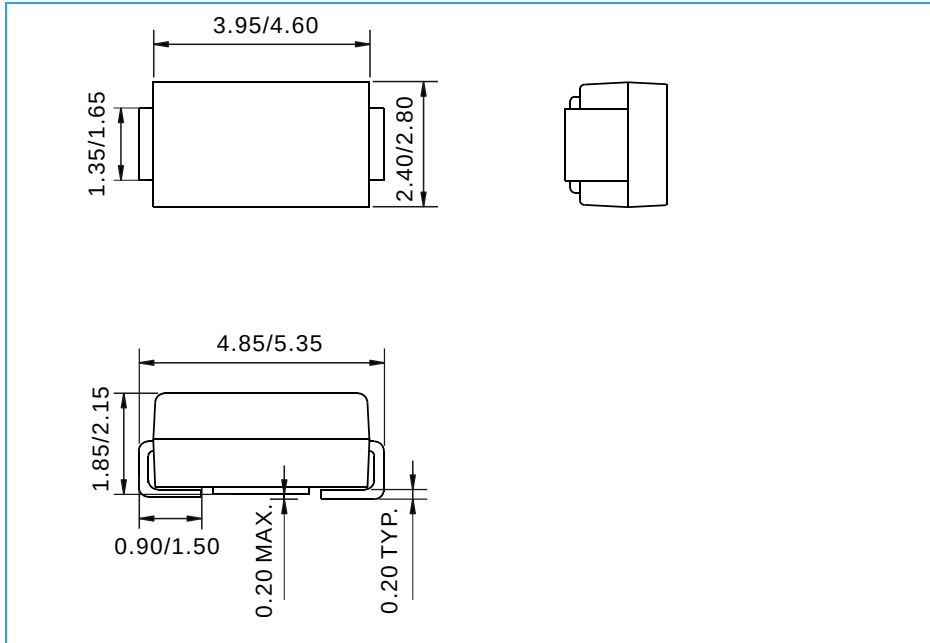
Fig.2 Z_z-I_z Characteristics



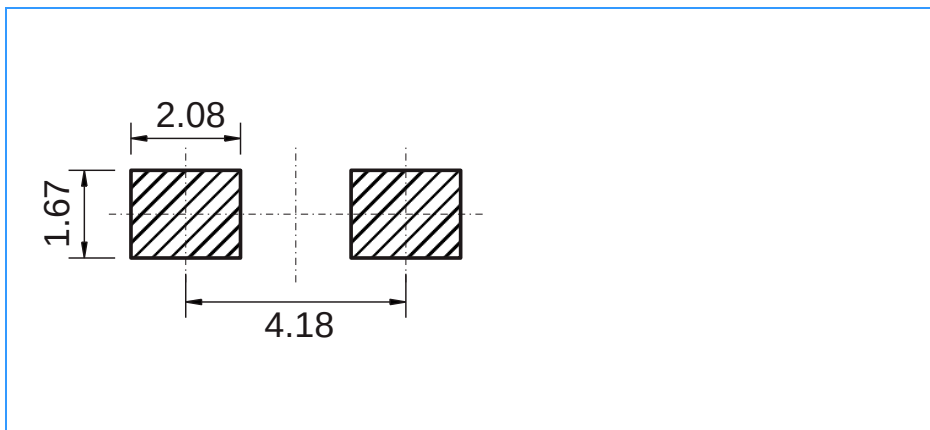
Zener Diodes

TU1ZA5.1 - TU1ZA390

Package Outline Dimensions (Unit: mm)



Mounting Pad Layout (Unit: mm)



Ordering Information

Part Number	Package	Shipping Quantity
TU1ZA5.1 - TU1ZA390	SMA	5000 pcs / Tape & Reel