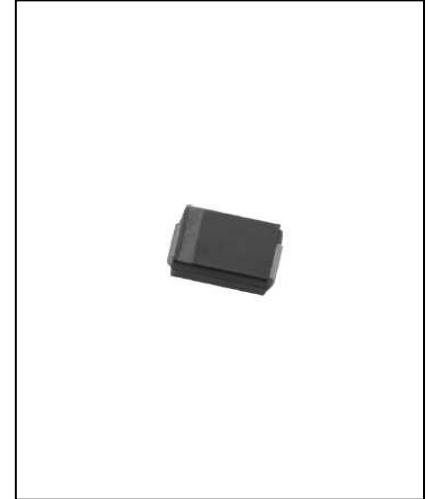


Surface mount zener diode

U1ZB6.8--U1ZB390

FEATURES

- Silicon planar power zener diodes
- For use in stabilizing and clipping circuits with high power rating.
- Standard zener voltage tolerance is $\pm 10\%$. Add suffix "A" for $\pm 5\%$ tolerance. Other zener voltage and tolerances are available upon request.



APPLICATIONS

- Zener diode
- Case:DO-214AC molded plastic

MAXIMUM RATING AND CHARACTERISTICS

Ratings at 25 ambient temperature unless otherwise specified.

Characteristic	Symbol	Value	Unit
Zener current (see Table "Characteristics")			
Power dissipation at $T_{amb}=25^{\circ}\text{C}$	P_{tot}	1.0(1)	W
Junction temperature	T_J	-40---+150	$^{\circ}\text{C}$
Storage temperature range	T_s	-40---+150	$^{\circ}\text{C}$

Notes: (1) Valid provided that leads at a distance of 10 mm from case are kept at ambient temperature.

Surface mount zener diode
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ELECTRICAL CHARACTERISTICS @ $T_A=25^\circ\text{C}$ unless otherwise specified

Part Number	Device Marking Code	P _D m W	Zener Voltage Range				Leakage Current		
			V _Z (V)			@I _{ZT}	I _R @ V _R		
			Min	Nom	Max	m A	μ A	V	
U1ZB6.8	ZB6.8	1000	6.2	6.8	7.4	10	10	3.0	
U1ZB7.5	ZB7.5	1000	6.8	7.5	8.3	10	10	4.5	
U1ZB8.2	ZB8.2	1000	7.4	8.2	9.1	10	10	4.9	
U1ZB9.1	ZB9.1	1000	8.2	9.1	10.1	10	10	5.5	
U1ZB10	ZB10	1000	9.0	10	11	10	10	6.0	
U1ZB11	ZB11	1000	9.9	11	12.1	10	10	7.0	
U1ZB12	ZB12	1000	10.8	12	13.2	10	10	8.0	
U1ZB13	ZB13	1000	11.7	13	14.3	10	10	9.0	
U1ZB15	ZB15	1000	13.5	15	16.5	10	10	10	
U1ZB16	ZB16	1000	14.4	16	17.6	10	10	11	
U1ZB18	ZB18	1000	16.2	18	19.8	10	10	13	
U1ZB20	ZB20	1000	18	20	22	10	10	14	
U1ZB22	ZB22	1000	19.8	22	24.2	10	10	16	
U1ZB24	ZB24	1000	21.6	24	26.4	10	10	17	
U1ZB27	ZB27	1000	24.3	27	29.7	10	10	19	
U1ZB30	ZB30	1000	27	30	33	10	10	21	
U1ZB33	ZB33	1000	29.7	33	36.3	10	10	26.4	
U1ZB36	ZB36	1000	32.4	36	39.6	9.0	10	28.8	
U1ZB39	ZB39	1000	35.1	39	42.9	9.0	10	31.2	
U1ZB43	ZB43	1000	38.7	43	47.3	7.0	10	34.4	
U1ZB47	ZB47	1000	42.3	47	51.7	6.0	10	37.6	
U1ZB51	ZB51	1000	45.9	51	56.1	6.0	10	40.8	
U1ZB68	ZB68	1000	61.2	68	74.8	4.0	10	54.4	
U1ZB75	ZB75	1000	67.5	75	82.5	4.0	10	60	
U1ZB82	ZB82	1000	73.8	82	90.2	3.0	10	65.4	
U1ZB91	ZB91	1000	81.9	91	100.1	3.0	10	72.8	
U1ZB100	100	1000	90	100	110	3.0	10	80	
U1ZB110	110	1000	99	110	121	3.0	10	88	
U1ZB150	150	1000	135	150	165	2.0	10	120	
U1ZB180	180	1000	162	180	198	1.5	10	144	
U1ZB200	200	1000	180	200	220	1.5	10	160	
U1ZB200-Y	200Y	1000	190	200	210	1.5	10	160	
U1ZB200-Z	200Z	1000	200	210	220	1.5	10	168	

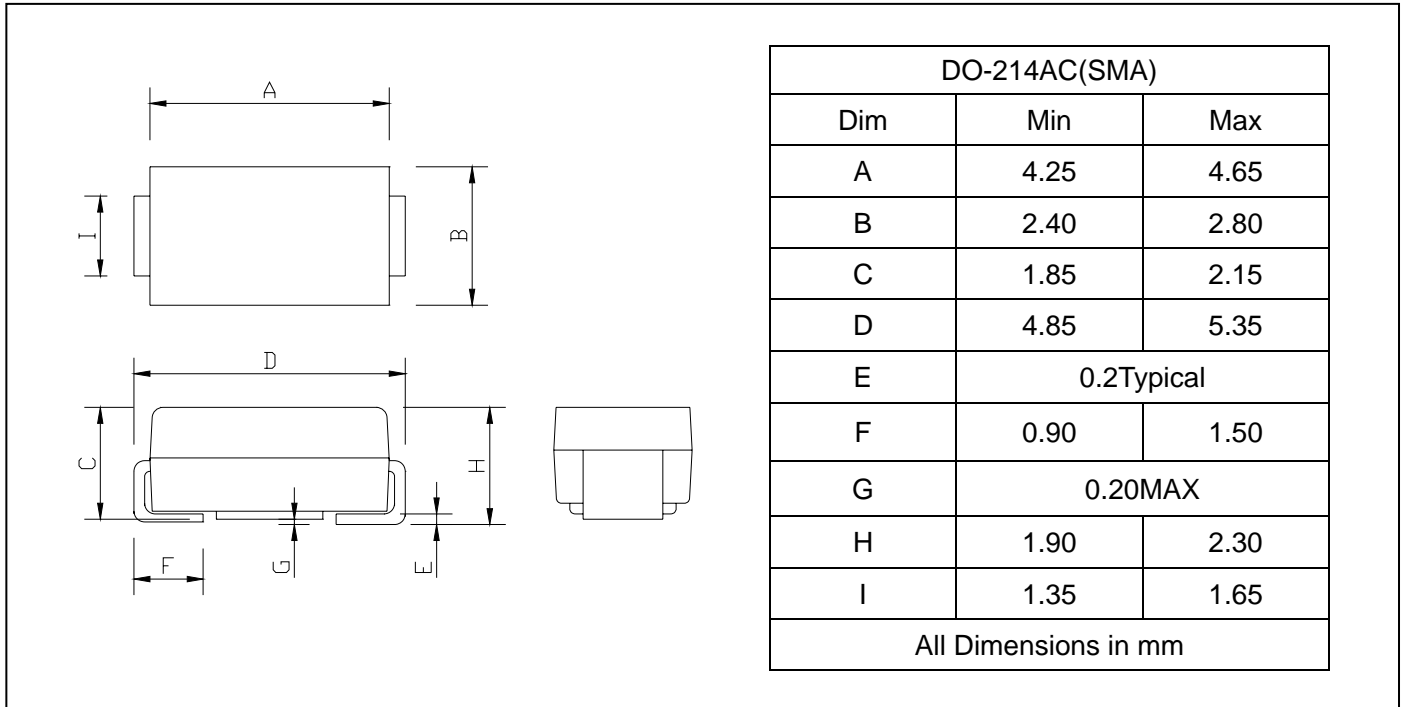
Surface mount zener diode
U1ZB6.8--U1ZB390

Part Number	Device Marking Code	P _D m W	Zener Voltage Range				Leakage Current		
			V _Z (V)			@I _{ZT} m A	I _R @ V _R		
			Min	Nom	Max		μ A	V	
U1ZB220	220	1000	198	220	242	0.5	10	176	
U1ZB220-Y	220Y	1000	210	220	230	0.5	10	176	
U1ZB220-Z	220Z	1000	220	230	240	0.5	10	184	
U1ZB240	240	1000	216	240	264	0.5	10	192	
U1ZB240-Y	240Y	1000	230	240	250	0.5	10	216	
U1ZB240-Z	240Z	1000	240	250	260	0.5	10	225	
U1ZB270	270	1000	243	270	297	0.5	10	216	
U1ZB270-X	270X	1000	250	260	270	0.5	10	234	
U1ZB270-Y	270Y	1000	260	270	280	0.5	10	243	
U1ZB270-Z	270Z	1000	270	280	290	0.5	10	252	
U1ZB300	300	1000	270	300	330	0.5	10	240	
U1ZB300-X	300X	1000	280	290	300	0.5	10	261	
U1ZB300-Y	300Y	1000	290	300	310	0.5	10	270	
U1ZB300-Z	300Z	1000	300	310	320	0.5	10	279	
U1ZB330	330	1000	297	330	363	0.5	10	264	
U1ZB330-X	330X	1000	310	320	330	0.5	10	288	
U1ZB330-Y	330Y	1000	320	330	340	0.5	10	297	
U1ZB330-Z	330Z	1000	330	340	350	0.5	10	306	
U1ZB390	390	1000	351	390	429	0.5	10	312	

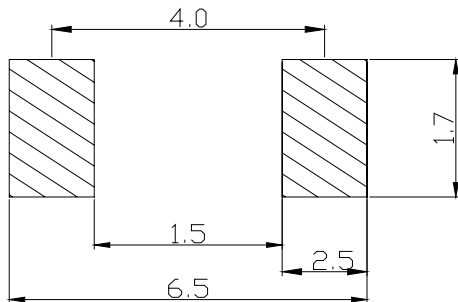
Surface mount zener diode

U1ZB6.8--U1ZB390

PACKAGE OUTLINE DIMENSIONS



SOLDERING FOOTPRINT



Unit : mm

PACKAGE INFORMATION

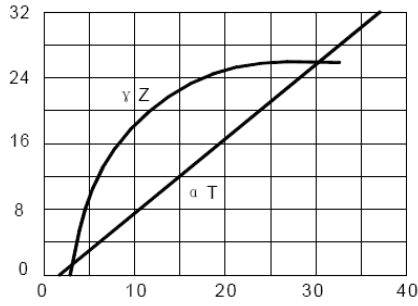
Device	Package	Shipping
U1ZB6.8--U1ZB390	DO-214AC(SMA)	5000/Tape&Reel

Surface mount zener diode

U1ZB6.8--U1ZB390

TEMPERATURE COEFFICIENT OF
ZENER VOLTAGE AT (mV/°C)

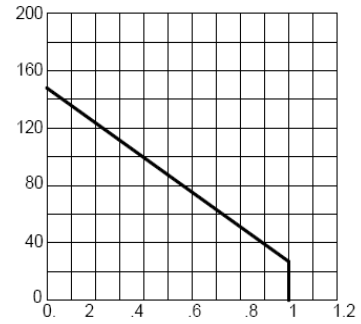
FIG.1 -- AT $V_Z - V_Z$



ZENER VOLTAGE V_Z (V)

MAXIMUM ALLOWABLE AMBIENT
TEMPERATURE T_A MAX (°C)

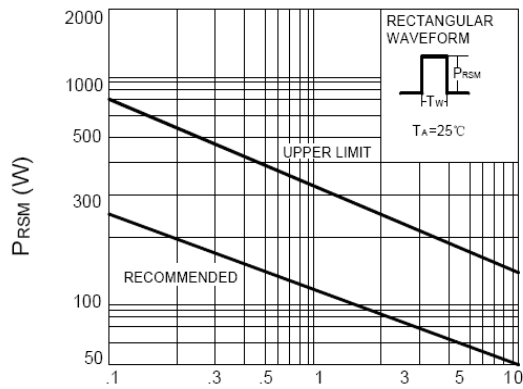
FIG.2 -- T_A MAX - P



POWER DISSIPATION P (W)

PEAK REVERSE POWER DISSIPATION

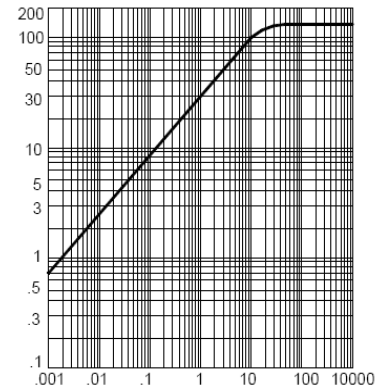
FIG.3 -- $P_{RSM} - t_w$



PULSE WIDTH T_W (ms)

TRANSIENT THERMAL IMPEDANCE

FIG.4 -- $R_{θJA} - T$



TIME T (S)