

SMA/DO-214AC

Features

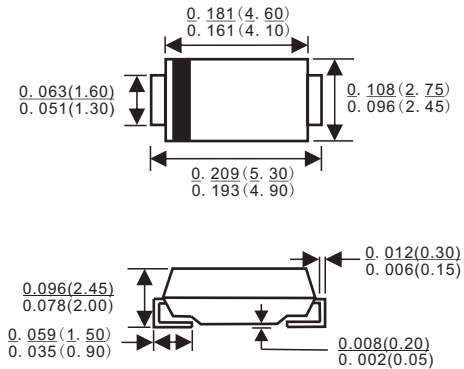
- ✧ Wide zener voltage range selection:3.3V to 100V .
- ✧ VZ Tolerance selection of $\pm 5\%$ (C series).
- ✧ Ideally suited for automated assembly processes.
- ✧ Moisture sensitivity level 1.

Applications

- ✧ Zener diode.
- ✧ Ultra-small surface mount package.

Ordering Information

Type No.	Marking	Package Code
BZG05C3V3-BZG05C100	See table 2	SMA



Dimensions in inches and(millimeters)

MAXIMUM RATING @ Ta=25°C unless otherwise specified

Characteristic	Symbol	Value	Unit
Power Dissipation	P_d	3	W
Thermal resistance, junction to ambient air	$R_{\theta JA}$	420	$^{\circ}\text{C}/\text{W}$
Junction temperature	T_j	150	$^{\circ}\text{C}$
Storage temperature range	T_{stg}	-65 to+150	$^{\circ}\text{C}$

Notes: These ratings are limiting values above which the serviceability of the diodes may be impaired.

ELECTRICAL CHARACTERISTICS ($T_{amb} = 25\text{ }^{\circ}\text{C}$, unless otherwise specified)											
PART NUMBER	ZENER VOLTAGE RANGE			TEST CURRENT		REVERSE LEAKAGE CURRENT		DYNAMIC RESISTANCE		TEMPERATURE COEFFICIENT	
	V_Z at I_{ZT1}			I_{ZT1}	I_{ZT2}	I_R at V_R		Z_Z at I_{ZT1}	Z_{ZK} at I_{ZT2}	TC_{VZ} at I_{ZT1}	
	V			mA	mA	μA	V	Ω		%K	
	MIN.	NOM.	MAX.			MAX.		MAX.	MAX.	MIN.	MAX.
BZG05C3V3	3.1	3.3	3.5	80	1	40	1	20	400	-0.08	-0.05
BZG05C3V6	3.4	3.6	3.8	60	1	20	1	20	500	-0.08	-0.05
BZG05C3V9	3.7	3.9	4.1	60	1	10	1	15	500	-0.07	-0.02
BZG05C4V3	4	4.3	4.6	50	1	3	1	13	500	-0.07	-0.01
BZG05C4V7	4.4	4.7	5	45	1	3	1	13	600	-0.03	0.04
BZG05C5V1	4.8	5.1	5.4	45	1	1	1.5	10	500	-0.01	0.04
BZG05C5V6	5.2	5.6	6	45	1	1	2	7	400	0	0.045
BZG05C6V2	5.8	6.2	6.6	35	1	1	3	4	300	0.01	0.055
BZG05C6V8	6.4	6.8	7.2	35	1	1	4	3.5	300	0.015	0.06
BZG05C7V5	7	7.5	7.9	35	0.5	1	4.5	3	200	0.02	0.065
BZG05C8V2	7.7	8.2	8.7	25	0.5	1	6.2	5	200	0.03	0.07
BZG05C9V1	8.5	9.1	9.6	25	0.5	1	6.8	5	200	0.035	0.075
BZG05C10	9.4	10	10.6	25	0.5	0.5	7	7	200	0.04	0.08
BZG05C11	10.4	11	11.6	20	0.5	0.5	8.2	8	300	0.045	0.08
BZG05C12	11.4	12	12.7	20	0.5	0.5	9.1	9	350	0.045	0.085
BZG05C13	12.4	13	14.1	20	0.5	0.5	10	10	400	0.05	0.085
BZG05C15	13.8	15	15.6	15	0.5	0.5	11	15	500	0.055	0.09
BZG05C16	15.3	16	17.1	15	0.5	0.5	12	15	500	0.055	0.09
BZG05C18	16.8	18	19.1	15	0.5	0.5	13	20	500	0.06	0.09
BZG05C20	18.8	20	21.2	10	0.5	0.5	15	24	600	0.06	0.09
BZG05C22	20.8	22	23.3	10	0.5	0.5	16	25	600	0.06	0.095
BZG05C24	22.8	24	25.6	10	0.5	0.5	18	25	600	0.06	0.095
BZG05C27	25.1	27	28.9	8	0.25	0.5	20	30	750	0.06	0.095
BZG05C30	28	30	32	8	0.25	0.5	22	30	1000	0.06	0.095
BZG05C33	31	33	35	8	0.25	0.5	24	35	1000	0.06	0.095
BZG05C36	34	36	38	8	0.25	0.5	27	40	1000	0.07	0.11
BZG05C39	37	39	41	6	0.25	0.5	30	50	1000	0.07	0.11
BZG05C43	40	43	46	6	0.25	0.5	33	50	1000	0.07	0.11
BZG05C47	44	47	50	4	0.25	0.5	36	90	1500	0.07	0.11
BZG05C51	48	51	54	4	0.25	0.5	39	115	1500	0.08	0.12
BZG05C56	52	56	60	4	0.25	0.5	43	120	2000	0.08	0.12
BZG05C62	58	62	66	4	0.25	0.5	47	125	2000	0.08	0.12
BZG05C68	64	68	72	4	0.25	0.5	51	130	2000	0.08	0.12
BZG05C75	70	75	79	4	0.25	0.5	56	135	2000	0.08	0.12
BZG05C82	77	82	87	2.7	0.25	0.5	62	200	3000	0.08	0.12
BZG05C91	85	91	96	2.7	0.25	0.5	68	250	3000	0.08	0.12
BZG05C100	95	100	106	2.7	0.25	0.5	75	350	3000	0.08	0.12

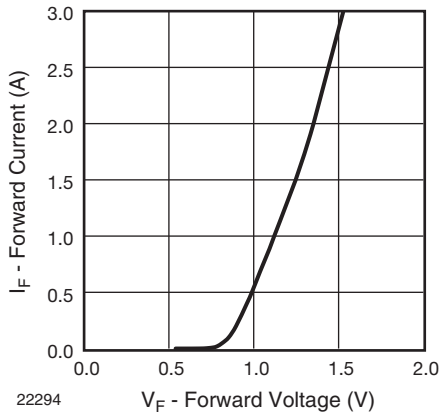


Fig. 1 - Forward Current vs. Forward Voltage

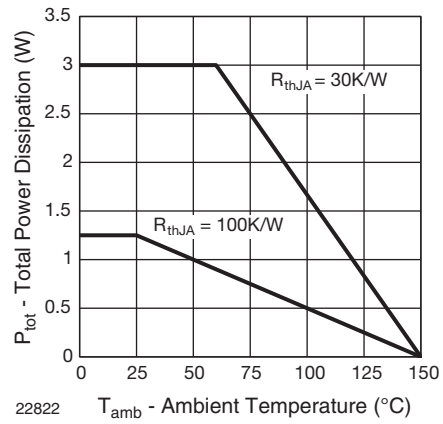


Fig. 2 - Typ. Total Power Dissipation vs. Ambient Temperature

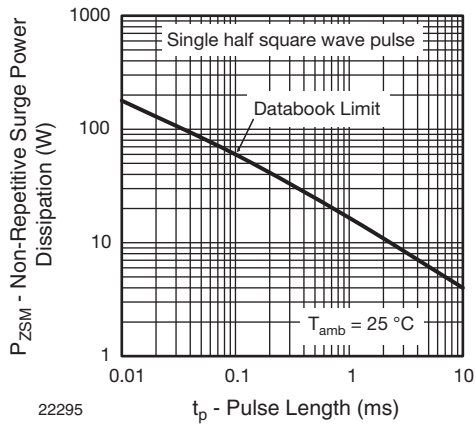


Fig. 3 - Non Repetitive Surge Power Dissipation vs. Pulse Length

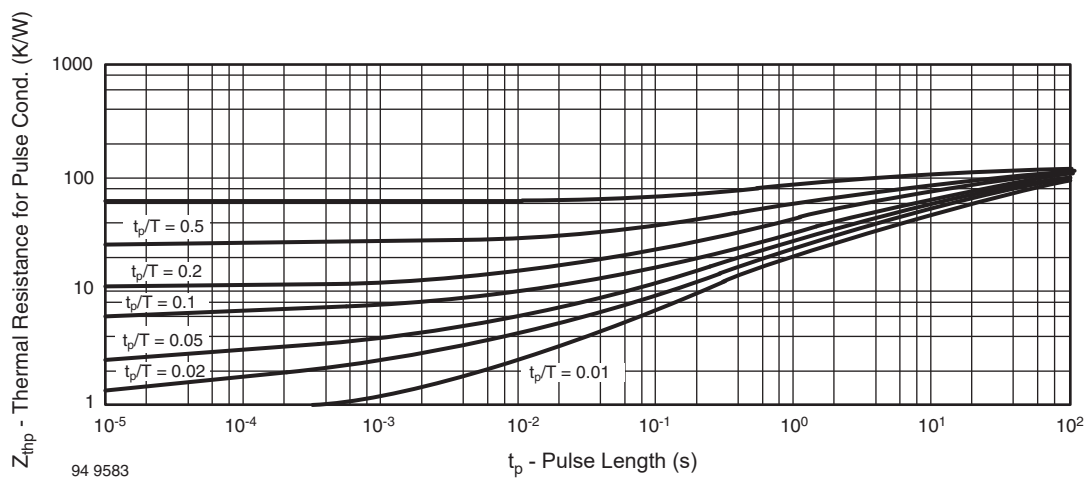


Fig. 4- Thermal Response