



**V<sub>Z</sub> : 3.3 - 100 Volts**  
**P<sub>D</sub> : 5.0 Watts**

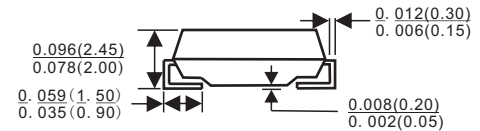
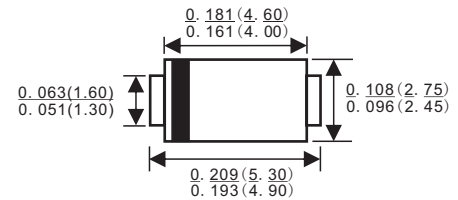
### Features

- ✧ High reliability
- ✧ Voltage range 3.3 V to 100 V
- ✧ Fits onto 5 mm SMD footpads
- ✧ Wave and reflow solderable
- ✧ Glass passivated junction

### Mechanical Data

- ✧ Case: JEDEC DO-214AC(SMA)
- ✧ Polarity: Color band denotes cathodes end
- ✧ Weight: 0.002 ounces, 0.064 grams
- ✧ Mounting position: any

### SMA/DO-214AC



Dimensions in inches and(millimeters)

### Maximum Ratings and Thermal Characteristics (T<sub>A</sub>=25 unless otherwise noted)

Parameter	Symbol	Value	Unit
Power dissipation at T <sub>ip</sub> =100	P <sub>tot</sub>	5.0	W
Forward voltage @ I <sub>F</sub> =500mA	V <sub>F</sub>	1.2	V
Maximum thermal resistance junction to ambient	R <sub>θJA</sub>	150	K/W
Peak reverse power dissipation(non-repetitive) tp=100μs square wave	P <sub>ZSM</sub>	600	W
Junction temperature	T <sub>J</sub>	-65 to +150	
Storage temperature range	T <sub>STG</sub>	-65 to +150	



<b>ELECTRICAL CHARACTERISTICS</b> ( $T_{amb} = 25\text{ }^{\circ}\text{C}$ , 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	$\mu\text{A}$	V	$\Omega$		%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



## Ratings AND Characteristic Curves

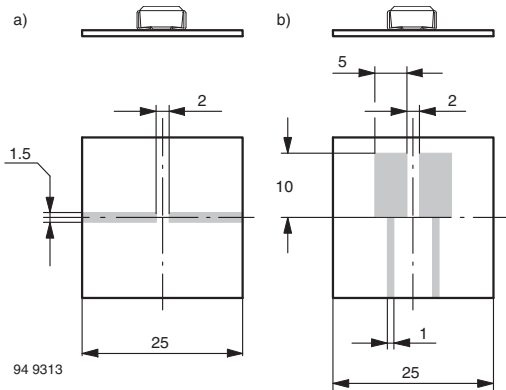


Fig. 1 - Boards for  $R_{thJA}$  Definition (Copper Overlay 35  $\mu$ )

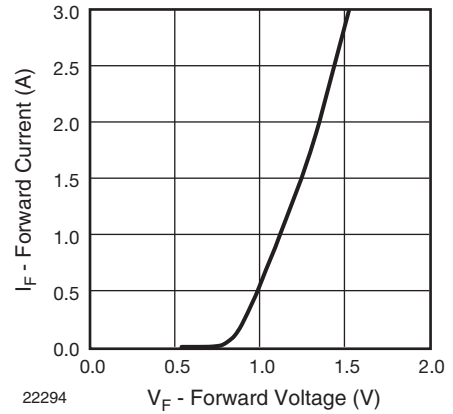


Fig. 3 - Forward Current vs. Forward Voltage

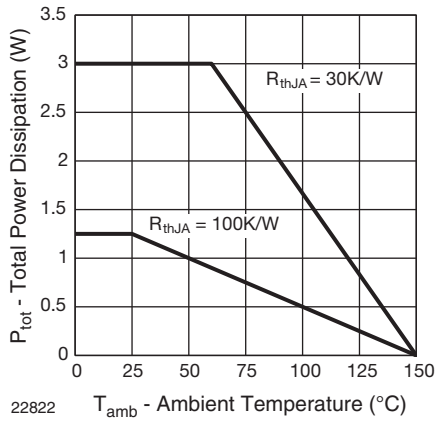


Fig. 2 - Typ. Total Power Dissipation vs. Ambient Temperature

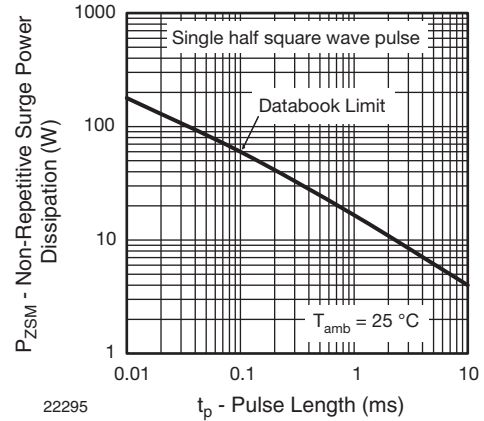


Fig. 4 - Non Repetitive Surge Power Dissipation vs. Pulse Length

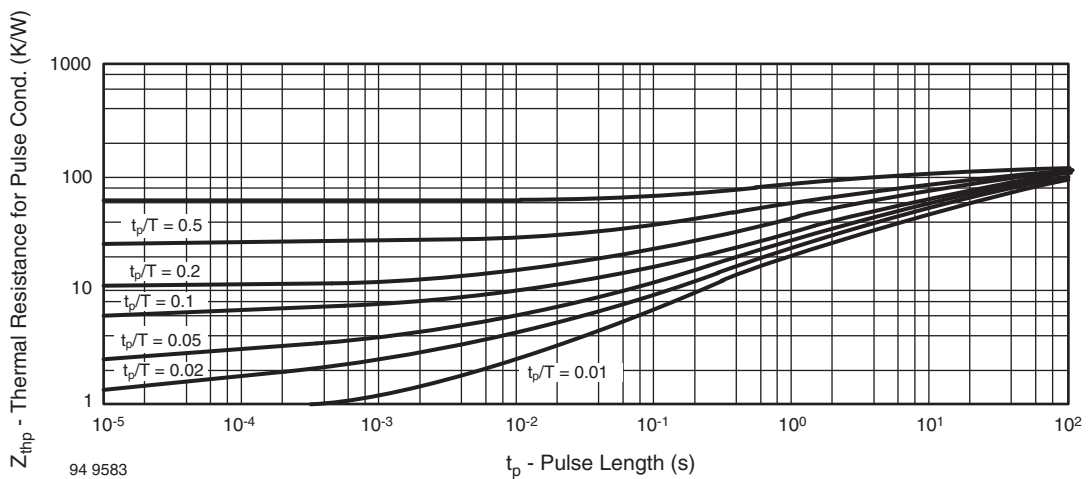


Fig. 5 - Thermal Response

PACKAGE	SPQ/PCS	CARTON SPQ/PCS	CARTON SIZE/CM	CARTON GW/KG	CARTON NW/KG
SMA	5000/REEL	80000	36X30.6X31	12.00	11.00