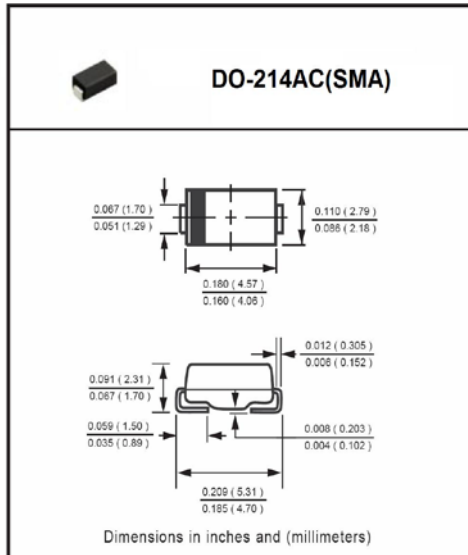


# BZG03C10 THRU BZG03C270



## Features

- Plastic package has Underwriters Laboratory Flammability Classification 94 V-0
- For surface mounted applications
- Voltage stabilization
- Glass passivated junction
- High temperature soldering guaranteed: 260 °C/10 seconds at terminal
- Lead and body according with RoHS standard

## Mechanical Data

- Case: Molded plastic body
- Terminals: Solder plated
- Polarity: Color band denotes cathode end
- Mounting Position: Any

Absolute Maximum Ratings  $T_{amb} = 25\text{ }^{\circ}\text{C}$ , unless otherwise specified

Parameter	Test Conditions	Symbol	Value	Unit
Power dissipation	$R_{thJA} < 25\text{K/W}$ , $T_{amb} = 100\text{ }^{\circ}\text{C}$	Pv	3	W
	$R_{thJA} < 100\text{K/W}$ , $T_{amb} = 50\text{ }^{\circ}\text{C}$	Pv	1.25	W
Non repetitive peak surge power dissipation	$t_p = 100\text{ }\mu\text{s}$ sq.pulse, $T_j = 25\text{ }^{\circ}\text{C}$ prior to surge	PzSM	600	W
Junction temperature		$T_j$	175	$^{\circ}\text{C}$
Storage temperature range		$T_{stg}$	-65...+150	$^{\circ}\text{C}$

Maximum Thermal Resistance  $T_j = 25\text{ }^{\circ}\text{C}$

Parameter	Test Conditions	Symbol	Value	Unit
Junction lead		$R_{thJL}$	25	K/W
Junction ambient	mounted on epoxy-glass hard tissue, Fig. 1a	$R_{thJA}$	150	K/W
	mounted on epoxy-glass hard tissue, Fig. 1b	$R_{thJA}$	125	K/W
	mounted on Al-oxid-ceramic ( $\text{Al}_2\text{O}_3$ ), Fig. 1b	$R_{thJA}$	100	K/W

Electrical Characteristics  $T_j = 25\text{ }^{\circ}\text{C}$

Parameter	Test Conditions	Type	Symbol	Min	Typ	Max	Unit
Forward voltage	$I_F = 0.5\text{A}$		V <sub>F</sub>			1.2	V

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## Electrical Characteristics (TA = 25°C unless otherwise noted)

Type	Vz			rzj and TKvz at					IR at		VR
	V			$\Omega$		%K		mA	$\mu$ A	V	
	Min.	Typ.	Max.	Typ.	Max.	Typ.	Max.		Max.		
BZG03C10	9.4	10	10.6	2	4	0.05	0.09	50	10	7.5	
BZG03C11	10.4	11	11.6	4	7	0.05	0.10	50	4	8.2	
BZG03C12	11.4	12	12.7	4	7	0.05	0.10	50	3	9.1	
BZG03C13	12.4	13	14.1	5	10	0.05	0.10	50	2	10	
BZG03C15	13.8	15	15.6	5	10	0.05	0.10	50	1	11	
BZG03C16	15.3	16	17.1	6	15	0.06	0.11	25	1	12	
BZG03C18	16.8	18	19.1	6	15	0.06	0.11	25	1	13	
BZG03C20	18.8	20	21.2	6	15	0.06	0.11	25	1	15	
BZG03C22	20.8	22	23.3	6	15	0.06	0.11	25	1	16	
BZG03C24	22.8	24	25.6	7	15	0.06	0.11	25	1	18	
BZG03C27	25.1	27	28.9	7	15	0.06	0.11	25	1	20	
BZG03C30	28	30	32	8	15	0.06	0.11	25	1	22	
BZG03C33	31	33	35	8	15	0.06	0.11	25	1	24	
BZG03C36	34	36	38	21	40	0.06	0.11	10	1	27	
BZG03C39	37	39	41	21	40	0.06	0.11	10	1	30	
BZG03C43	40	43	46	24	45	0.07	0.12	10	1	33	
BZG03C47	44	47	50	24	45	0.07	0.12	10	1	36	
BZG03C51	48	51	54	25	60	0.07	0.12	10	1	39	
BZG03C56	52	56	60	25	60	0.07	0.12	10	1	43	
BZG03C62	58	62	66	25	80	0.08	0.13	10	1	47	
BZG03C68	64	68	72	25	80	0.08	0.13	10	1	51	
BZG03C75	70	75	79	30	100	0.08	0.13	10	1	56	
BZG03C82	77	82	87	30	100	0.08	0.13	10	1	62	
BZG03C91	85	91	96	60	200	0.09	0.13	5	1	68	
BZG03C100	94	100	106	60	200	0.09	0.13	5	1	75	
BZT03C110	104	110	116	80	250	0.09	0.13	5	1	82	
BZG03C120	114	120	127	80	250	0.09	0.13	5	1	91	
BZT03C130	124	130	141	110	300	0.09	0.13	5	1	100	
BZG03C150	138	150	156	130	300	0.09	0.13	5	1	110	
BZG03C160	158	160	171	150	350	0.09	0.13	5	1	120	
BZG03C180	168	180	191	180	400	0.09	0.13	5	1	130	
BZT03C200	188	200	212	200	500	0.09	0.13	5	1	150	
BZT03C220	208	220	233	350	750	0.09	0.13	2	1	160	
BZT03C240	228	240	256	400	850	0.09	0.13	2	1	180	
BZT03C270	251	270	289	450	1000	0.09	0.13	2	1	200	

Notes1. Device mounted on FR-4 PCB, 1 inch x 0.85 inch x 0.062 inch

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## Characteristics ( $T_j = 25^\circ\text{C}$ unless otherwise specified)

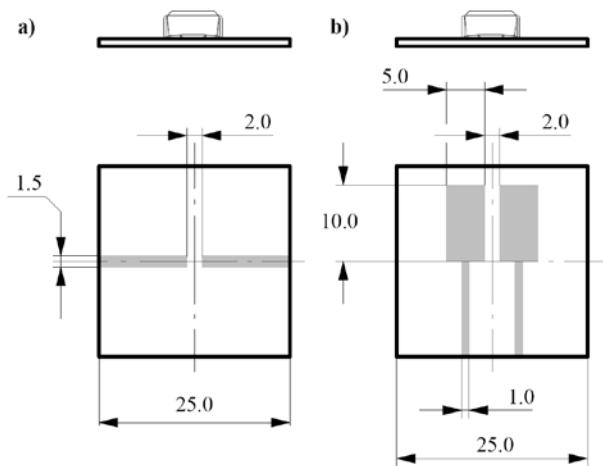


Figure 1. Boards for  $R_{thJA}$  definition (corner overlav 35 $\mu$ )

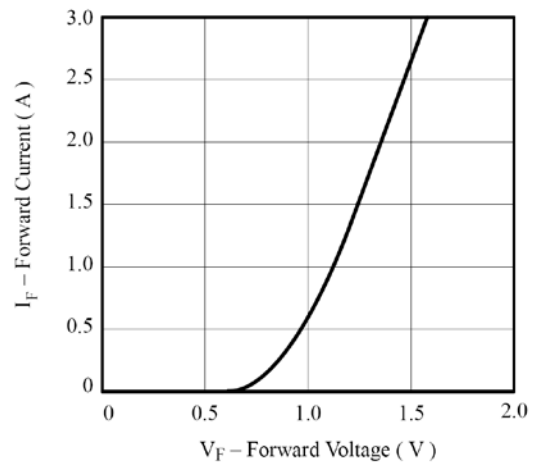


Figure 3. Forward Current vs. Forward Voltage

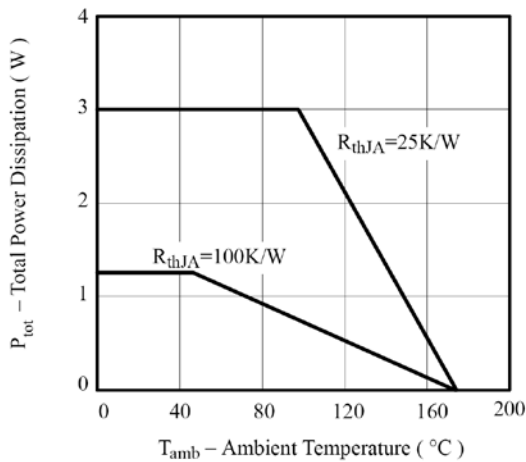


Figure 2. Total Power Dissipation vs. Ambient Temperature

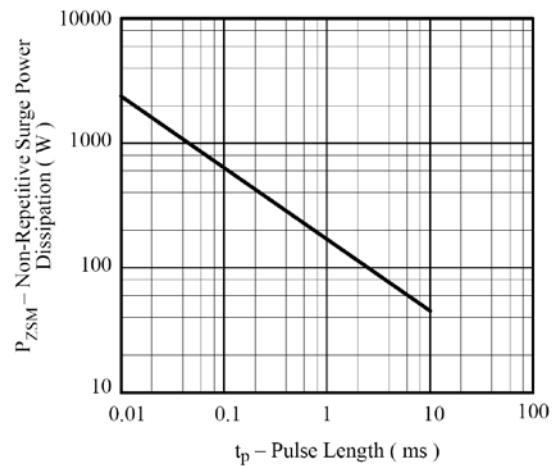
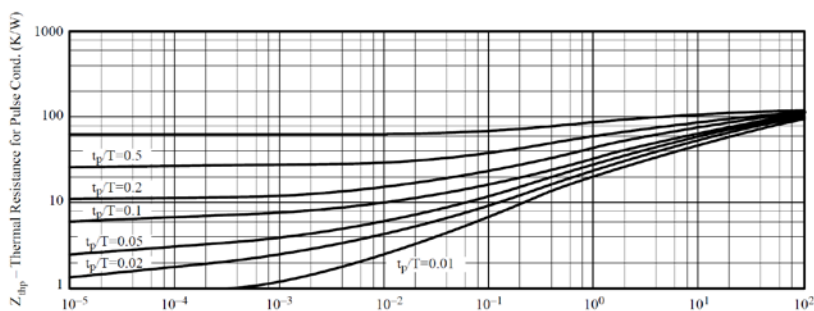


Figure 4. Non Repetitive Surge Power Dissipation vs. Pulse Length



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