ZENER DIODES

V_Z : 10 -- 270 V

POWER DISSIPATION: 3.0 W

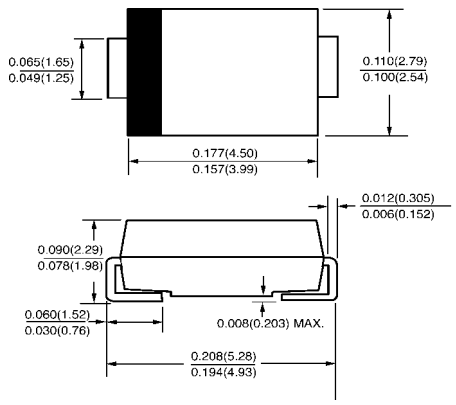
FEATURES

- ◇ High reliability
- ◇ Voltage range 10 V to 270 V
- ◇ Fits onto 5 mm SMD footpads
- ◇ Wave and reflow solderable
  Glass passivated junction

MECHANICAL DATA

- ◇ Case:JEDEC DO-214AC(SMA)
- ◇ Terminals: Solderable per MIL-STD-202,Method 208
- ◇ Polarity: Color band denotes cathods end
- ◇ Weight: 0.002 ounces, 0.064 grams
- ◇ Mounting position: any

DO-214AC(SMA)



inch(mm)

Maximum Ratings and Thermal Characteristics (T_A=25℃ unless otherwise noted)

Parameter	Symbol	Value	Unit
Power dissipation at T_A=100℃	P_{tot}	3.0	W
Forward voltage @I_F=500mA	V_F	1.2	V
Maximum thermal resistance junction to ambient	$R_{\theta JA}$	150	K/W
Peak reverse power dissipation(non-repetitive) tp=100μs square wave	P_{ZSM}	600	W
Junction temperature	T_J	-65 to +150	℃
Storage temperature range	T_{STG}	-65 to +150	℃

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ELECTRICAL CHARACTERISTICS(T_A=25℃)

Type	Device marking code	Zener voltage range V_Z			Dynamic resistance			Temperature coefficient of zener voltage		Reverse leakage current I_R@V_R	
					r_{zj}@I_{ZT}		I_{ZT}	TK_{VZ}@I_{ZT}			
		V	V	V	Ω	Ω	m A	%/K	%/K	μ A	V
		Min.	Typ.	Max.	Typ.	Max.		Typ.	Max.	Max.	
BZG03C10	G10	9.4	10	10.6	2.0	4.0	50	0.05	0.09	10	7.5
BZG03C11	G11	10.4	11	11.6	4.0	7.0	50	0.05	0.10	4.0	8.2
BZG03C12	G12	11.4	12	12.7	4.0	7.0	50	0.05	0.10	3.0	9.1
BZG03C13	G13	12.4	13	14.1	5.0	10	50	0.05	0.10	2.0	10
BZG03C15	G15	13.8	15	15.6	5.0	10	50	0.05	0.10	1.0	11
BZG03C16	G16	15.3	16	17.1	6.0	15	25	0.06	0.11	1.0	12
BZG03C18	G18	16.8	18	19.1	6.0	15	25	0.06	0.11	1.0	13
BZG03C20	G20	18.8	20	21.2	6.0	15	25	0.06	0.11	1.0	15
BZG03C22	G22	20.8	22	23.3	6.0	15	25	0.06	0.11	1.0	16
BZG03C24	G24	22.8	24	25.6	7.0	15	25	0.06	0.11	1.0	18
BZG03C27	G27	25.1	27	28.9	7.0	15	25	0.06	0.11	1.0	20
BZG03C30	G30	28	30	32	8.0	15	25	0.06	0.11	1.0	22
BZG03C33	G33	31	33	35	8.0	15	25	0.06	0.11	1.0	24
BZG03C36	G36	34	36	38	21	40	10	0.06	0.11	1.0	27
BZG03C39	G39	37	39	41	21	40	10	0.06	0.11	1.0	30
BZG03C43	G43	40	43	46	24	45	10	0.07	0.12	1.0	33
BZG03C47	G47	44	47	50	24	45	10	0.07	0.12	1.0	36
BZG03C51	G51	48	51	54	25	60	10	0.07	0.12	1.0	39
BZG03C56	G56	52	56	60	25	60	10	0.07	0.12	1.0	43
BZG03C62	G62	58	62	66	25	80	10	0.08	0.13	1.0	47
BZG03C68	G68	64	68	72	25	80	10	0.08	0.13	1.0	51
BZG03C75	G75	70	75	79	30	100	10	0.08	0.13	1.0	56
BZG03C82	G82	77	82	87	30	100	10	0.08	0.13	1.0	62
BZG03C91	G91	85	91	96	60	200	5	0.09	0.13	1.0	68
BZG03C100	G100	94	100	106	60	200	5	0.09	0.13	1.0	75
BZG03C110	G110	104	110	116	80	250	5	0.09	0.13	1.0	82
BZG03C120	G120	114	120	127	80	250	5	0.09	0.13	1.0	91
BZG03C130	G130	124	130	141	110	300	5	0.09	0.13	1.0	100
BZG03C150	G150	138	150	156	130	300	5	0.09	0.13	1.0	110
BZG03C160	G160	158	160	171	150	350	5	0.09	0.13	1.0	120
BZG03C180	G180	168	180	191	180	400	5	0.09	0.13	1.0	130
BZG03C200	G200	188	200	212	200	500	5	0.09	0.13	1.0	150
BZG03C220	G220	208	220	233	350	750	2	0.09	0.13	1.0	160
BZG03C240	G240	228	240	256	400	850	2	0.09	0.13	1.0	180
BZG03C270	G270	251	270	289	450	1000	2	0.09	0.13	1.0	200

FIG.1 –TYPICAL FORWARD CHARACTERISTIC

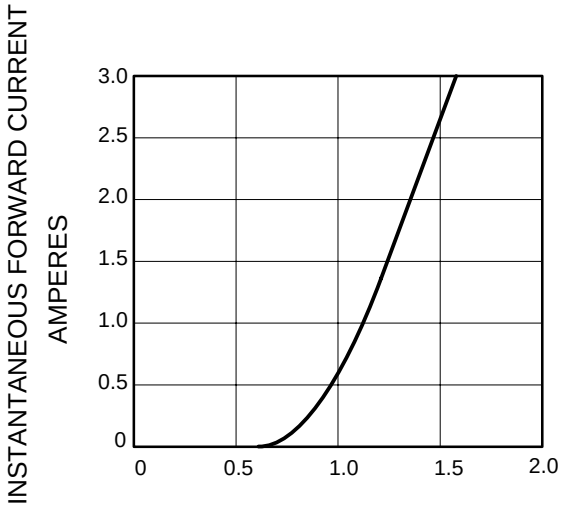

FIG.2 – NON REPETITIVE SURGE POWER DISSIPATION VS.PULSE LENGTH

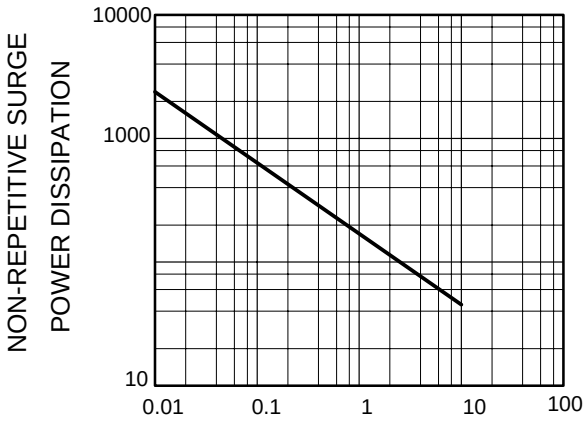

FIG.3 -- THERMAL RESPONSE

