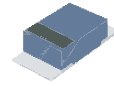




BZD27-M Series

800mW SMD Zener Diodes - 3.6V - 200V



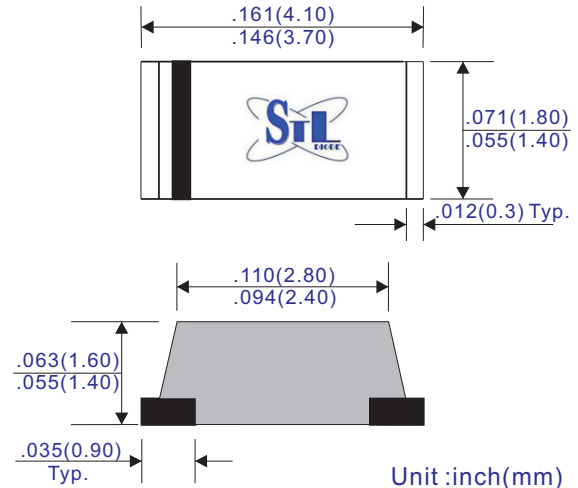
FEATURES

- Zener & surge current specification
- Low profile surface mount package
- Low leakage current
- Excellent stability
- Standard zener voltage tolerance $\pm 5\%$
- Glass passivated chip junction
- Lead-free parts for green partner, meet RoHS environment substance directive request.

MECHANICAL DATA

- Case: Molded plastic Mini-SMA/SOD-123
- Epoxy: UL 94-V0 rated flame retardant
- Terminals: Solderable per MIL-STD-750 Method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Weight: 0.0013 ounces, 0.04 grams

Mini-SMA



MAXIMUM RATING AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified

	Symbols	BZD27-M Series	Units
Power Dissipation, note 1 Derate above 75°C	P _D	0.8 10,6	W mW/°C
Nov-Repetitive Peak Pulse Power Dissipation 100µs square pulse, note 3 10/1000µs waveform (BZD27-C3V6M to BZD27-C100M) 10/1000µs waveform (BZD27-C110M to BZD27-C200M)	P _{ZSM} P _{RSM} P _{RSM}	300 150 100	W
Thermal Resistance Junction to Air	R _{θJA}	180	°C/W
Thermal Resistance Junction to Lead	R _{θJL}	30	°C/W
Junction Temperature	T _J	-65 ~ +150	°C
Storage Temperature Range	T _{STG}	-65 ~ +175	°C
Forward Voltage at I _F =0.2 A	V _F	1.2	Volts

Note 1. Mounted on 3.0x3.0mm square (.04mm thick) copper pads.

2. Measured on 8.3ms, single half-sine wave or equivalent square wave, duty cycle=4 pulses per minute maximum.

3. T_J=25°C prior to surge.



MAXIMUM RATING AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified

Part No.	Electical Characteristics (Ta=25°C)						Temp. Coefficient		
	Vzmin	Vzmax	IzT	Zzmax	Zztyp	IR(μA) Max.	min	max	
	(V)	(V)	(mA)	(Ω)	(Ω)	VR(V)	%/C	%/C	
BZD27-C3V6M	3.4	3.8	100	8	4	100	1.0	-0.14	-0.04
BZD27-C3V9M	3.7	4.1	100	8	4	50	1.0	-0.14	-0.04
BZD27-C4V3M	4	4.6	100	7	4	10	1.0	-0.12	-0.02
BZD27-C4V7M	4.4	5	100	7	3	10	1.0	-0.1	0
BZD27-C5V1M	4.8	5.4	100	6	3	10	1.0	-0.08	0.02
BZD27-C5V6M	5.2	6	100	4	2	10	2.0	-0.04	0.04
BZD27-C6V2M	5.8	6.6	100	3	2	10	2.0	-0.01	0.06
BZD27-C6V8M	6.4	7.2	100	3	1	10	3.0	0	0.07
BZD27-C7V5M	7.0	7.9	100	2	1	10	3.0	0	0.07
BZD27-C8V2M	7.7	8.7	100	2	1	10	3.0	0.03	0.08
BZD27-C9V1M	8.5	9.6	50	4	2	10	5.0	0.03	0.08
BZD27-C10M	9.4	10.6	50	4	2	7	7.5	0.05	0.09
BZD27-C11M	10.4	11.6	50	7	4	4	8.2	0.05	0.1
BZD27-C12M	11.4	12.7	50	7	4	3	9.1	0.05	0.1
BZD27-C13M	12.4	14.1	50	10	5	2	10	0.05	0.1
BZD27-C15M	13.8	15.6	50	10	5	1	11	0.05	0.1
BZD27-C16M	15.3	17.1	25	15	6	1	12	0.06	0.11
BZD27-C18M	16.8	19.1	25	15	6	1	13	0.06	0.11
BZD27-C20M	18.8	21.2	25	15	6	1	15	0.06	0.11
BZD27-C22M	20.8	23.3	25	15	6	1	16	0.06	0.11
BZD27-C24M	22.8	25.6	25	15	7	1	18	0.06	0.11
BZD27-C27M	25.1	28.9	25	15	7	1	20	0.06	0.11
BZD27-C30M	28.0	32	25	15	8	1	22	0.06	0.11
BZD27-C33M	31	35	25	15	8	1	24	0.06	0.11
BZD27-C36M	34	38	10	40	21	1	27	0.06	0.11
BZD27-C39M	37	41	10	40	21	1	30	0.06	0.11
BZD27-C43M	40	46	10	45	24	1	33	0.07	0.12
BZD27-C47M	44	50	10	45	24	1	36	0.07	0.12
BZD27-C51M	48	54	10	60	25	1	39	0.07	0.12
BZD27-C56M	52	60	10	60	25	1	43	0.07	0.12
BZD27-C62M	58	66	10	80	25	1	47	0.08	0.13
BZD27-C68M	64	72	10	80	25	1	51	0.08	0.13
BZD27-C75M	70	79	10	100	30	1	56	0.08	0.13
BZD27-C82M	77	87	10	100	30	1	62	0.08	0.13
BZD27-C91M	85	96	5	200	60	1	68	0.08	0.13
BZD27-C100M	94	106	5	200	60	1	75	0.09	0.13
BZD27-C110M	104	116	5	250	80	1	82	0.09	0.13
BZD27-C120M	114	127	5	250	80	1	91	0.09	0.13
BZD27-C130M	124	141	5	300	110	1	100	0.09	0.13
BZD27-C150M	138	156	5	300	130	1	110	0.09	0.13
BZD27-C160M	153	171	5	350	150	1	120	0.09	0.13
BZD27-C180M	168	191	5	400	180	1	130	0.09	0.13
BZD27-C200M	188	212	5	500	200	1	150	0.09	0.13

Note 1. Pulse test: tp <= 5ms

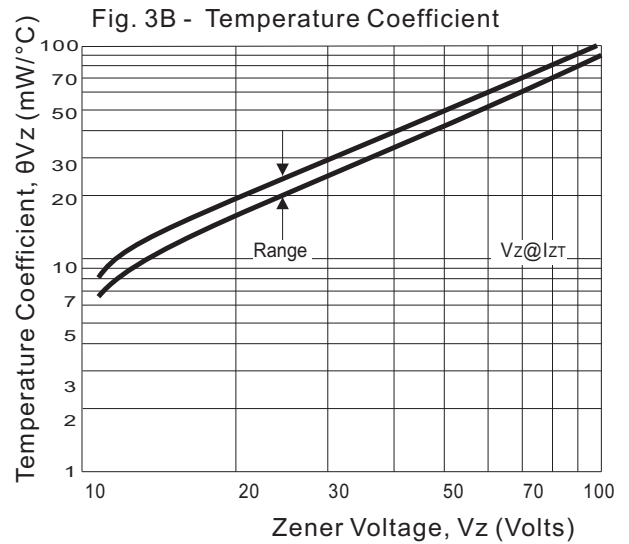
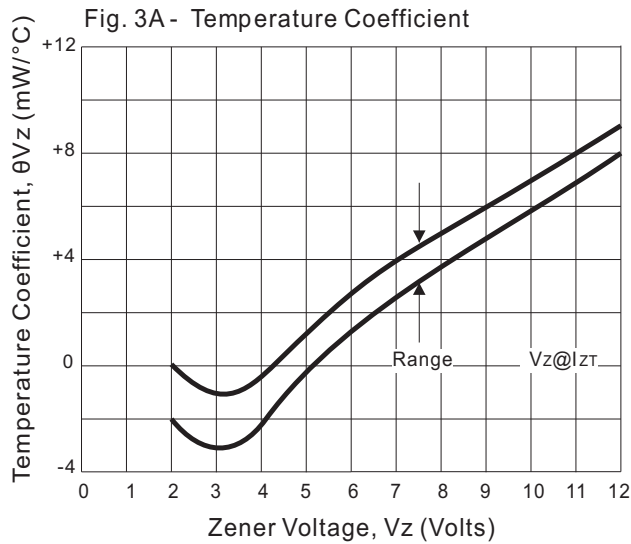
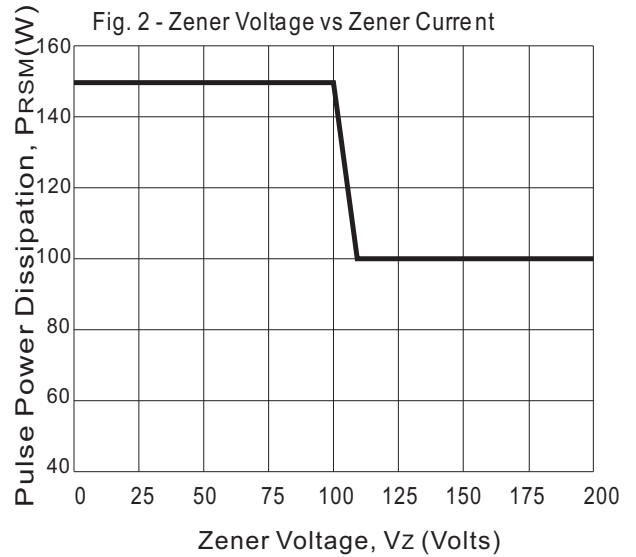
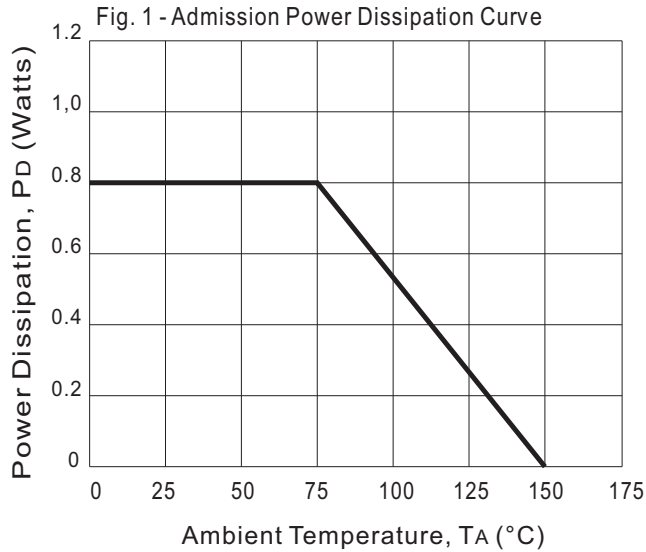


Fig. 4 - Non-Repetitive Peak Reverse Current Pulse Definition

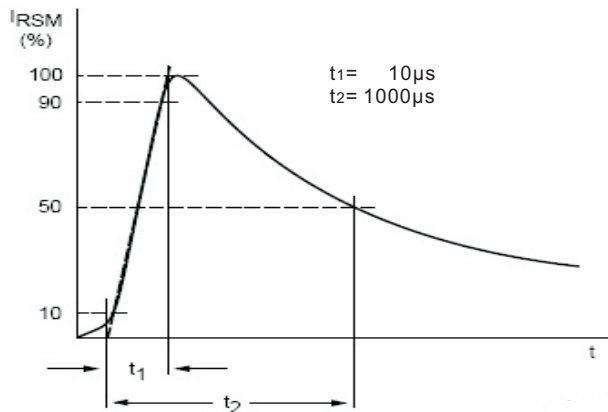


Fig. 5 - Max. Non-Repetitive Peak Reverse Power Dissipation

