



VOLTAGE REGULATOR DIODES

BZD27C--SERIES

FEATURES

- Silicon planar zener diodes.
- Low profile surface-mount package.
- Zener and surge current specification
- Low leakage current
- Excellent stability
- High temperature soldering guaranteed: 265°C/10 seconds, at terminals



MECHANICAL DATA

- Case: JEDEC SOD-123FL molded plastic
- Polarity: Color band denotes positive end (cathode) except for bidirectional
- Weight: 0.006 ounces, 0.02 grams
- Mounting position: Any

Maximum Ratings and Thermal Characteristics

Ratings at 25°C ambient temperature unless otherwise specified

	SYMBOL	VALUE	UNITS
Non-repetitive peak pulse power dissipation with a 10/1000µs waveform (NOTE 1)	P_{PPM}	150	Watts
Power dissipation at $T_A=25^\circ\text{C}$ (NOTE 2)	P_{tot}	0.8	Watts
Reverse current at stand-off voltage @ V_{WM}	I_R	SEE TABLE 1	µ A
Maximum instantaneous forward voltage at 0.2A	V_F	1.2	Volts
Thermal resistance junction to ambient	$R_{\theta JA}$	180	K/W
Operating temperature junction range	T_J	- 55 --- +150	°C
Storage temperature range	T_{STG}	- 55 --- +150	°C

NOTES: (1) $T_J=25^\circ\text{C}$ prior to surge.

(2) Mounted on epoxy-glass PCB with 3×3 mm Cu pads(≥40µm thick)

(3) Non-repetitive peak reverse current in accordance with "IEC 60-1, Section 8" (10/1000 µs pulse)



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ELECTRICAL CHARACTERISTICS @ T_A=25°C

Partnumber	Marking code	V _{BR} , Breakdown Voltage (V)			I _T	V _C @I _{PP}	Max I _{PP}	IR@VRWM	V _{RWM}
		MIN	NOM	MAX	m A	(V)	(A)	(uA)	(V)
BZD27C7V5P	J8	7	7.5	7.9	100	11.3	13.3	1500	6.2
BZD27C8V2P	J9	7.7	8.2	8.7	100	12.3	12.2	1200	6.8
BZD27C9V1P	K0	8.5	9.1	9.6	50	13.3	11.3	100	7.5
BZD27C10P	K1	9.4	10	10.6	50	14.8	10.1	20	8.2
BZD27C11P	K2	10.4	11	11.6	50	15.7	9.6	5	9.1
BZD27C12P	K3	11.4	12	12.7	50	17	8.8	5	10
BZD27C13P	K4	12.4	13	14.1	50	18.9	7.9	5	11
BZD27C15P	K5	13.8	15	15.6	50	20.9	7.2	5	12
BZD27C16P	K6	15.3	16	17.1	25	22.9	6.6	5	13
BZD27C18P	K7	16.8	18	19.1	25	25.6	5.9	5	15
BZD27C20P	K8	18.8	20	21.2	25	28.4	5.3	5	16
BZD27C22P	K9	20.8	22	23.3	25	31	4.8	5	18
BZD27C24P	L0	22.8	24	25.6	25	33.8	4.4	5	20
BZD27C27P	L1	25.1	27	28.9	25	38.1	3.9	5	22
BZD27C30P	L2	28	30	32	25	42.2	3.6	5	24
BZD27C33P	L3	31	33	35	25	46.2	3.2	5	27
BZD27C36P	L4	34	36	38	10	50.1	3	5	30
BZD27C39P	L5	37	39	41	10	54.1	2.8	5	33
BZD27C43P	L6	40	43	46	10	60.7	2.5	5	36
BZD27C47P	L7	44	47	50	10	65.5	2.3	5	39
BZD27C51P	L8	48	51	54	10	70.8	2.1	5	43
BZD27C56P	L9	52	56	60	10	78.6	1.9	5	47
BZD27C62P	M0	58	62	66	10	86.5	1.7	5	51
BZD27C68P	M1	64	68	72	10	94.4	1.6	5	56
BZD27C75P	M2	70	75	79	10	103.5	1.5	5	62
BZD27C82P	M3	77	82	87	10	114	1.3	5	68
BZD27C91P	M4	85	91	96	5	126	1.2	5	75
BZD27C100P	M5	94	100	106	5	139	1.1	5	82
BZD27C110P	M6	104	110	116	5	139	0.72	5	91
BZD27C120P	M7	114	120	127	5	152	0.65	5	100
BZD27C130P	M8	124	130	141	5	169	0.59	5	110
BZD27C150P	M9	138	150	156	5	187	0.53	5	120
BZD27C160P	N1	153	160	171	5	205	0.48	5	130
BZD27C180P	N2	168	180	191	5	229	0.43	5	150
BZD27C200P	N3	188	200	212	5	254	0.39	5	160



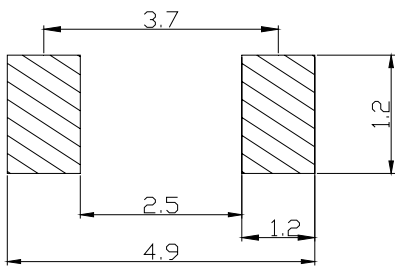
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PACKAGE OUTLINE DIMENSIONS

SOD-123FL		
Dim	Min	Max
A	2.60	3.00
B	1.70	2.10
D	3.45	3.95
E	0.10	0.30
F	0.30	0.90
H	1.05	1.35
I	0.85	1.15
All Dimensions in mm		

SOLDERING FOOTPRINT



Unit : mm

PACKAGE INFORMATION

Device	Package	Shipping
BZD27C--SERIES	SOD-123FL	10000/Tape&Reel



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Figure 1. Forward Current vs. Forward Voltage

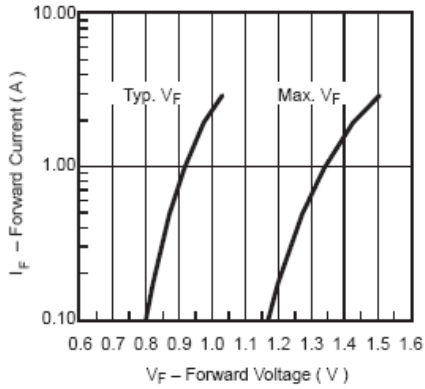


Figure 2. Maximum Pulse Power Dissipation vs. Zener Voltage

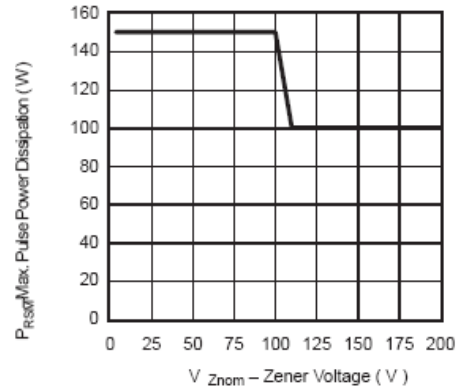


Figure 3. Typ. Diode Capacitance vs. Reverse Voltage

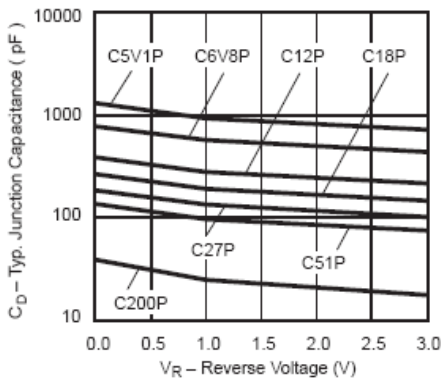


Figure 4. Non-Repetitive Peak Reverse Current Pulse Definition

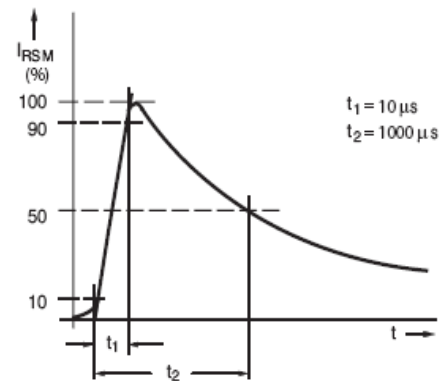


Figure 5. Power Dissipation vs. Ambient Temperature

