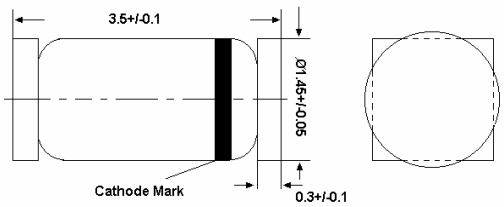
BZT52 Series

SILICON PLANAR ZENER DIODES

Standard Zener voltage tolerance is ±20%. Add suffix “A” for ±10% tolerance and suffix “B” for ±5% tolerance, Other tolerance, non standard and higher Zener voltages are upon request.

LS-34



QuadroMELF
Dimensions in mm

Absolute Maximum Ratings (T_a = 25 °C)

Parameter	Symbol	Value	Unit
Power Dissipation at T_{amb} = 75 °C	P_{tot}	500	mW
Junction Temperature	T_j	200	°C
Storage Temperature Range	T_S	- 65 to +200	°C

Characteristics at T_a = 25 °C

Parameter	Symbol	Max.	Unit
Thermal Resistance Junction to Ambient Air	R_{thA}	0.3	K/W
Forward Voltage at I_F = 200 mA	V_F	1.1	V

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Type	Zener Voltage Range		Maximum Zener Impedance [1]			Reverse Leakage Current		Temp. Coefficient of Zener Voltage
	V_{znom} [3]	I_{ZT}	r_{ZJT}	r_{ZJK} at	I_{ZK}	I_R [2] at	V_R	TK_{VZ}
	V	mA	Ω	Ω	mA	μA	V	%/K
BZT5221	2.4	20	< 30	< 1200	0.25	< 100	1	<-0.085
BZT5222	2.5	20	< 30	< 1250	0.25	< 100	1	<-0.085
BZT5223	2.7	20	< 30	< 1300	0.25	< 75	1	<-0.080
BZT5224	2.8	20	< 30	< 1400	0.25	< 75	1	<-0.080
BZT5225	3.0	20	< 29	< 1600	0.25	< 50	1	<-0.075
BZT5226	3.3	20	< 28	< 1600	0.25	< 25	1	<-0.070
BZT5227	3.6	20	< 24	< 1700	0.25	< 15	1	<-0.065
BZT5228	3.9	20	< 23	< 1900	0.25	< 10	1	<-0.060
BZT5229	4.3	20	< 22	< 2000	0.25	< 5	1	<-0.055
BZT5230	4.7	20	< 19	< 1900	0.25	< 5	2	<±0.030
BZT5231	5.1	20	< 17	< 1600	0.25	< 5	2	<±0.030
BZT5232	5.6	20	< 11	< 1600	0.25	< 5	3	<+0.038
BZT5233	6.0	20	< 7	< 1600	0.25	< 5	3.5	<+0.038
BZT5234	6.2	20	< 7	< 1000	0.25	< 5	4	<+0.045
BZT5235	6.8	20	< 5	< 750	0.25	< 3	5	<+0.050
BZT5236	7.5	20	< 6	< 500	0.25	< 3	6	<+0.058
BZT5237	8.2	20	< 8	< 500	0.25	< 3	6.5	<+0.062
BZT5238	8.7	20	< 8	< 600	0.25	< 3	6.5	<+0.065
BZT5239	9.1	20	< 10	< 600	0.25	< 3	7	<+0.068
BZT5240	10	20	< 17	< 600	0.25	< 3	8	<+0.075
BZT5241	11	20	< 22	< 600	0.25	< 2	8.4	<+0.076
BZT5242	12	20	< 30	< 600	0.25	< 1	9.1	<+0.077
BZT5243	13	9.5	< 13	< 600	0.25	< 0.5	9.9	<+0.079
BZT5244	14	9.0	< 15	< 600	0.25	< 0.1	10	<+0.082
BZT5245	15	8.5	< 16	< 600	0.25	< 0.1	11	<+0.082
BZT5246	16	7.8	< 17	< 600	0.25	< 0.1	12	<+0.083
BZT5247	17	7.4	< 19	< 600	0.25	< 0.1	13	<+0.084
BZT5248	18	7.0	< 21	< 600	0.25	< 0.1	14	<+0.085
BZT5249	19	6.6	< 23	< 600	0.25	< 0.1	14	<+0.086
BZT5250	20	6.2	< 25	< 600	0.25	< 0.1	15	<+0.086
BZT5251	22	5.6	< 29	< 600	0.25	< 0.1	17	<+0.087
BZT5252	24	5.2	< 33	< 600	0.25	< 0.1	18	<+0.088
BZT5253	25	5.0	< 35	< 600	0.25	< 0.1	19	<+0.089
BZT5254	27	4.6	< 41	< 600	0.25	< 0.1	21	<+0.090
BZT5255	28	4.5	< 44	< 600	0.25	< 0.1	21	<+0.091
BZT5256	30	4.2	< 49	< 600	0.25	< 0.1	23	<+0.091
BZT5257	33	3.8	< 58	< 700	0.25	< 0.1	25	<+0.092
BZT5258	36	3.4	< 70	< 700	0.25	< 0.1	27	<+0.093
BZT5259	39	3.2	< 80	< 800	0.25	< 0.1	30	<+0.094
BZT5260	43	3.0	< 93	< 900	0.25	< 0.1	33	<+0.095
BZT5261	47	2.7	< 105	< 1000	0.25	< 0.1	36	<+0.095
BZT5262	51	2.5	< 125	< 1100	0.25	< 0.1	39	<+0.096
BZT5263	56	2.2	< 150	< 1300	0.25	< 0.1	43	<+0.096
BZT5264	60	2.1	< 170	< 1400	0.25	< 0.1	46	<+0.097
BZT5265	62	2.0	< 185	< 1400	0.25	< 0.1	47	<+0.097
BZT5266	68	1.8	< 230	< 1600	0.25	< 0.1	52	<+0.097
BZT5267	75	1.7	< 270	< 1700	0.25	< 0.1	56	<+0.098
BZT5268	82	1.5	< 330	< 2000	0.25	< 0.1	62	<+0.098

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Type	Zener Voltage Range		Maximum Zener Impedance [1]			Reverse Leakage Current		Temp. Coefficient of Zener Voltage
	V_{znom} [3]	I_{ZT}	r_{ZJT}	r_{ZJK} at	I_{ZK}	I_R [2] at	V_R	TK_{VZ}
	V	mA	Ω	Ω	mA	μA	V	%/K
BZT5269	87	1.4	< 370	< 2200	0.25	< 0.1	68	<+0.099
BZT5270	91	1.4	< 400	< 2300	0.25	< 0.1	69	<+0.099
BZT5271	100	1.3	< 500	-	-	< 0.1	75	<+0.100
BZT5272	110	1.2	< 700	-	-	< 0.1	83	<+0.100
BZT5273	120	1.0	< 950	-	-	< 0.1	90	<+0.100
BZT5274	130	0.95	< 1100	-	-	< 0.1	98	<+0.110
BZT5275	140	0.90	< 1300	-	-	< 0.1	105	<+0.110
BZT5276	150	0.85	< 1500	-	-	< 0.1	113	<+0.110
BZT5277	160	0.80	< 1700	-	-	< 0.1	120	<+0.115
BZT5278	170	0.74	< 1900	-	-	< 0.1	127	<+0.115
BZT5279	180	0.68	< 2200	-	-	< 0.1	135	<+0.120
BZT5280	190	0.66	< 2400	-	-	< 0.1	142	<+0.120
BZT5281	200	0.65	< 2500	-	-	< 0.1	150	<+0.120

[1] The Zener Impedance is derived from the 60 Hz AC voltage which results when an AC current having an RMS value equal to 10% of the Zener Current (I_{ZT} or I_{ZK}) is superimposed on I_{ZT} or I_{ZK} .Zener Impedance is measured at two points to insure a sharp knee on the breakdown curve and to eliminate unstable units.

[2] Measured under thermal equilibrium and DC test conditions.

[3] Tested with pulses tp = 20 ms.

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