Certificate Number: Q10561

Certificate Number: E17276

BZX85B Series

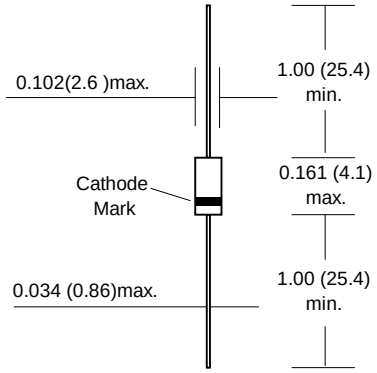
ZENER DIODES

V_Z : 3.6 to 200V
P_D : 1.3W

FEATURES :
- Silicon planar power zener diodes.
- For use in stabilizing and clipping circuits with high power rating.
- Standard zener voltage tolerance is ± 2%
- Other tolerances are available upon request.
- Pb / RoHS Free

MECHANICAL DATA :
Case: DO-41 Glass Case
Weight: approx. 0.35g

DO - 41 Glass
(DO-204AL)



Dimensions in inches and (millimeters)

Maximum Ratings and Thermal Characteristics

Rating at 25 °C ambient temperature unless otherwise specified.

Parameter	Symbol	Value	Unit
Zener Current see Table "Characteristics"			
Maximum Forward Voltage at I_F = 200 mA.	V_F	1.2	V
Power Dissipation at Ta = 25°C	P_D	1.3(1)	W
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	130(1)	°C/W
Junction temperature	T_J	175	°C
Storage temperature range	T_S	-55 to + 175	°C

Note:

(1) Valid provided that leads at a distance of 3/8" from case are kept at ambient temperature.

ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified

Type Number	Nominal Zener Voltage (1)		Maximum Zener Impedance, f = 1kHz			Maximum Reverse Leakage Current		Maximum DC Zener Current	Temp. coefficient of Zener Voltage	
	V_Z @ I_{ZT}	I_{ZT}	Z_{ZT} @ I_{ZT}	Z_{ZK} @ I_{ZK}	I_{ZK}	I_R @	V_R	I_{ZM} (2)	a_{mvz}(% / °C)	
	(V)	(mA)	(W)	(W)	(mA)	(mA)	(V)	(mA)	min.	max.
BZX85B3V6	3.6	60	15	500	1.0	20	1.0	290	-0.08	-0.05
BZX85B3V9	3.9	60	15	500	1.0	10	1.0	280	-0.07	-0.02
BZX85B4V3	4.3	50	13	500	1.0	3.0	1.0	250	-0.05	0.010
BZX85B4V7	4.7	45	13	500	1.0	3.0	1.0	215	-0.03	0.040
BZX85B5V1	5.1	45	10	500	1.0	1.0	1.5	200	-0.01	0.040
BZX85B5V6	5.6	45	7.0	400	1.0	1.0	2.0	190	0	0.045
BZX85B6V2	6.2	35	4.0	300	1.0	1.0	3.0	170	0.010	0.055
BZX85B6V8	6.8	35	3.5	300	1.0	1.0	4.0	155	0.015	0.060
BZX85B7V5	7.5	35	3.0	200	0.5	1.0	4.5	140	0.020	0.065
BZX85B8V2	8.2	25	5.0	200	0.5	1.0	6.2	130	0.030	0.070
BZX85B9V1	9.1	25	5.0	200	0.5	1.0	6.8	120	0.040	0.075
BZX85B10	10	25	7.0	200	0.5	0.5	7.5	105	0.450	0.080
BZX85B11	11	20	8.0	300	0.5	0.5	8.2	97	0.045	0.080
BZX85B12	12	20	9.0	350	0.5	0.5	9.1	88	0.045	0.085
BZX85B13	13	20	10	400	0.5	0.5	10	79	0.050	0.085
BZX85B15	15	15	10	500	0.5	0.5	11	71	0.055	0.090
BZX85B16	16	15	15	500	0.5	0.5	12	66	0.055	0.090
BZX85B18	18	15	20	500	0.5	0.5	13	62	0.060	0.090
BZX85B20	20	10	24	600	0.5	0.5	15	56	0.060	0.090
BZX85B22	22	10	25	600	0.5	0.5	16	52	0.060	0.095
BZX85B24	24	10	25	600	0.5	0.5	18	47	0.060	0.095
BZX85B27	27	8.0	30	750	0.25	0.5	20	41	0.060	0.095
BZX85B30	30	8.0	30	1000	0.25	0.5	22	36	0.060	0.095
BZX85B33	33	8.0	35	1000	0.25	0.5	24	33	0.060	0.095
BZX85B36	36	8.0	40	1000	0.25	0.5	27	30	0.060	0.095
BZX85B39	39	6.0	50	1000	0.25	0.5	30	28	0.060	0.095
BZX85B43	43	6.0	50	1000	0.25	0.5	33	26	0.060	0.095
BZX85B47	47	4.0	90	1500	0.25	0.5	36	23	0.060	0.095
BZX85B51	51	4.0	115	1500	0.25	0.5	39	21	0.060	0.095
BZX85B56	56	4.0	120	2000	0.25	0.5	43	19	0.060	0.095
BZX85B62	62	4.0	125	2000	0.25	0.5	47	16	0.060	0.095
BZX85B68	68	4.0	130	2000	0.25	0.5	51	15	0.055	0.095
BZX85B75	75	4.0	135	2000	0.25	0.5	56	14	0.055	0.095
BZX85B82	82	2.7	200	3000	0.25	0.5	62	12	0.055	0.095
BZX85B91	91	2.7	250	3000	0.25	0.5	68	10	0.055	0.095
BZX85B100	100	2.7	350	3000	0.25	0.5	75	9.4	0.055	0.095
BZX85B110	110	2.7	450	4000	0.25	0.5	82	8.6	0.055	0.095
BZX85B120	120	2.0	550	4500	0.25	0.5	91	7.8	0.055	0.095
BZX85B130	130	2.0	700	5000	0.25	0.5	100	7.0	0.055	0.095
BZX85B150	150	2.0	1000	6000	0.25	0.5	110	6.4	0.055	0.095
BZX85B160	160	1.5	1100	6500	0.25	0.5	120	5.8	0.055	0.095
BZX85B180	180	1.5	1200	7000	0.25	0.5	130	5.2	0.055	0.095
BZX85B200	200	1.5	1500	8000	0.25	0.5	150	4.7	0.055	0.095

Notes: (1) Measured with pulses tp = 5 ms

(2) Valid provided that leads are kept at ambient temperature at a distance of 10 mm from case

(3) The type number listed have a standard tolerance on the nominal zener voltage of ± 2%.