



## BZV85C 2V7 THRU BZV85C 220

PINGWEI ENTERPRISE

### SILICON PLANAR ZENER DIODES

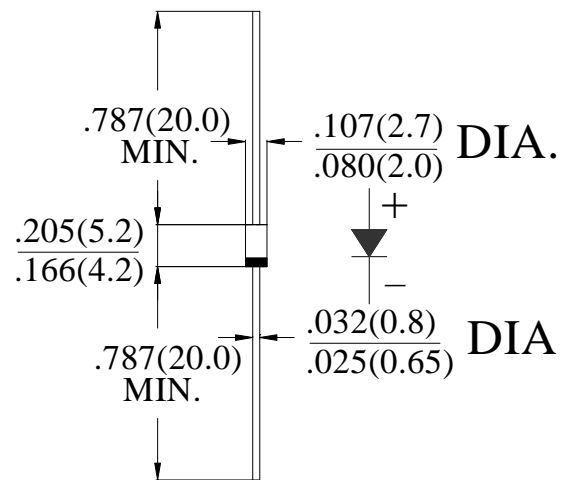
#### FEATURES

- Voltage Range: 2.7V to 220V
- Double siug type construction

#### MECHANICAL DATA

- Case: Molded plastic
- Epoxy: UL94V-0 rate flame retardant
- Lead: MIL-STD- 202E, Method 208 guaranteed
- Polarity: Color band denotes cathode end
- Mounting position: Any
- Weight: 0.33 grams

#### DO-41



Dimensions in inches and (millimeters)

#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

#### Absolute Maximum Ratings ( $T_a=25^\circ\text{C}$ )

Type Number	SYMBOL	VALUE	units
Power Dissipation at $T_{amb}=25^\circ\text{C}$	$P_{tot}$	1*	W
Junction Temperature	$T_J$	200	°C
Storage Temperature Range	$T_S$	-55 to +200	°C

\* Valid provided that leads at a distance of 8 mm from case are kept at ambient temperature.

#### Characteristics at $T_{amb}=25^\circ\text{C}$

Type Number	SYMBOL	Min.	Typ.	Max.	units
Thermal Resistance Junction to Ambient Air	$R_{thA}$	--	--	170*	K/W
Forward Voltage at $I_F=200\text{mA}$	$V_F$	--	--	1.2	V

\*Valid provided that leads at a distance of 8 mm from case are kept at ambient temperature.

Electrical Characteristics (at T<sub>J</sub>=25°C)

TYPE	Zener Voltage range <sup>1)</sup>			Dynamic resistance			Reverse leakage current		Temp coefficient Zener Voltage
	V <sub>znom</sub> V	I <sub>ZT</sub> mA	for V <sub>ZT</sub> <sup>2)</sup> V	r <sub>ZJT</sub>	R <sub>zjt</sub> at	I <sub>zk</sub>	I <sub>R</sub> <sup>2)</sup> at	V <sub>R</sub>	TK <sub>VZ</sub>
				Ω	Ω	mA	μA	V	%/K
BZV 85/C 2V7	2.7	80	2.5...2.9	< 20	< 400	1	< 150	1	-0.08...-0.05
BZV 85/C 3V0	3.0	80	2.8...3.2	< 20	< 400	1	< 100	1	-0.08...-0.05
BZV 85/C 3V3	3.3	70	3.1...3.5	< 20	< 400	1	< 40	1	-0.08...-0.05
BZV 85/C 3V6	3.6	60	3.4...3.8	< 15	< 500	1	< 20	1	-0.08...-0.05
BZV 85/C 3V9	3.9	60	3.7...4.1	< 15	< 500	1	< 10	1	-0.07...-0.02
BZV 85/C 4V3	4.3	50	4.0...4.6	< 13	< 500	1	< 3	1	-0.07...+0.01
BZV 85/C 4V7	4.7	45	4.4...5.0	< 13	< 600	1	< 3	1	-0.03...+0.04
BZV 85/C 5V1	5.1	45	4.8...5.4	< 10	< 500	1	< 1	1.5	-0.01...+0.04
BZV 85/C 5V6	5.6	45	5.2...6.0	< 7	< 400	1	< 1	2	0...+0.045
BZV 85/C 6V2	6.2	35	5.8...6.6	< 4	< 300	1	< 1	3	+0.015...+0.055
BZV 85/C 6V8	6.8	35	6.4...7.2	< 3.5	< 300	1	< 1	4	+0.015...+0.06
BZV 85/C 7V5	7.5	35	7.0...7.9	< 3	< 200	0.5	< 1	4.5	+0.02...+0.065
BZV 85/C 8V2	8.2	25	7.7...8.7	< 5	< 200	0.5	< 1	6.2	0.03...0.07
BZV 85/C 9V1	9.1	25	8.5...9.6	< 5	< 200	0.5	< 1	6.8	0.03...0.075
BZV 85/C 10	10	25	9.4...10.6	< 7	< 200	0.5	< 0.5	7	0.04...0.08
BZV 85/C 11	11	20	10.4...11.6	< 8	< 300	0.5	< 0.5	8.2	0.045...0.08
BZV 85/C 12	12	20	11.4...12.7	< 9	< 350	0.5	< 0.5	9.1	0.045...0.085
BZV 85/C 13	13	20	12.4...14.1	< 10	< 400	0.5	< 0.5	10	0.05...0.085
BZV 85/C 15	15	15	13.8...15.6	< 15	< 500	0.5	< 0.5	11	0.055...0.09
BZV 85/C 16	16	15	15.3...17.1	< 15	< 500	0.5	< 0.5	12	0.055...0.09
BZV 85/C 18	18	15	16.8...19.1	< 20	< 400	0.5	< 0.5	13	0.06...0.09
BZV 85/C 20	20	10	18.8...21.2	< 24	< 600	0.5	< 0.5	15	0.06...0.09
BZV 85/C 22	22	10	20.8...23.3	< 25	< 600	0.5	< 0.5	16	0.06...0.095
BZV 85/C 24	24	10	22.8...25.6	< 25	< 600	0.5	< 0.5	18	0.06...0.095
BZV 85/C 27	27	8	25.1...28.9	< 30	< 750	0.25	< 0.5	20	0.06...0.095
BZV 85/C 30	30	8	28...32	< 30	< 1000	0.25	< 0.5	22	0.06...0.095
BZV 85/C 33	33	8	31...35	< 35	< 1000	0.25	< 0.5	24	0.06...0.095
BZV 85/C 36	36	8	34...38	< 40	< 1000	0.25	< 0.5	27	0.06...0.095
BZV 85/C 39	39	6	37...41	< 50	< 1000	0.25	< 0.5	30	0.06...0.095
BZV 85/C 43	43	6	40...46	< 50	< 1000	0.25	< 0.5	33	0.06...0.095
BZV 85/C 47	47	4	44...50	< 90	< 1500	0.25	< 0.5	36	0.06...0.095
BZV 85/C 51	51	4	48...54	< 115	< 1500	0.25	< 0.5	39	0.06...0.095
BZV 85/C 56	56	4	52...60	< 120	< 2000	0.25	< 0.5	43	0.06...0.095
BZV 85/C 62	62	4	58...66	< 125	< 2000	0.25	< 0.5	47	0.06...0.095
BZV 85/C 68	68	4	64...72	< 130	< 2000	0.25	< 0.5	51	0.06...0.095
BZV 85/C 75	75	4	70...79	< 135	< 2000	0.25	< 0.5	56	0.06...0.095
BZV 85/C 82	82	2.7	77...87	< 200	< 3000	0.25	< 0.5	62	0.07...0.10
BZV 85/C 91	91	2.7	85...96	< 250	< 3000	0.25	< 0.5	68	0.07...0.10
BZV 85/C 100	100	2.7	94...106	< 350	< 3000	0.25	< 0.5	75	0.07...0.11
BZV 85/C 110	110	2.7	104...116	< 450	< 4000	0.25	< 0.5	82	0.07...0.11
BZV 85/C 120	120	2	114...127	< 550	< 4500	0.25	< 0.5	91	0.07...0.11
BZV 85/C 130	130	2	124...141	< 700	< 5000	0.25	< 0.5	100	0.07...0.11
BZV 85/C 150	150	2	138...156	< 1000	< 6000	0.25	< 0.5	110	0.07...0.11
BZV 85/C 160	160	1.5	153...171	< 1100	< 6500	0.25	< 0.5	120	0.07...0.11
BZV 85/C 180	180	1.5	168...191	< 1200	< 7000	0.25	< 0.5	130	0.07...0.11
BZV 85/C 200	200	1.5	188...212	< 1500	< 8000	0.25	< 0.5	150	0.07...0.11
BZV 85/C 220	220	1.0	218...232	< 1600	< 9000	0.25	< 0.5	170	0.07...0.11

<sup>1)</sup> Tested with pulses tp=20 ms.

<sup>2)</sup> Valid provided that leads are kept at ambient temperature at a distance of 8 mm from case.