SEMICONDUCTOR

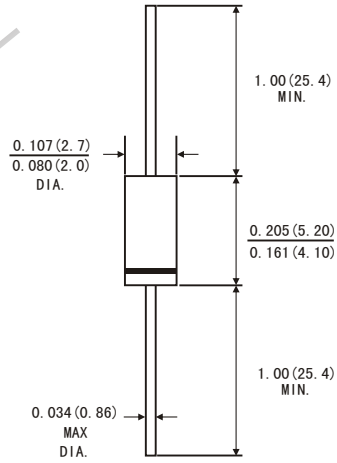
BZV85/C 2V7 THRU BZV85/C 200

1W SILICON PLANAR ZENER DIODES

FEATURES

- For use in stabilizing and clipping circuits with high power rating.
- The Zener voltage is graded according to the international E24 standard.
- Other voltage tolerance and higher Zener voltages are on request.
- High temperature soldering guaranteed:260℃/10 seconds at terminals
- Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC

DO-41(GLASS)



Dimensions in inches and (millimeters)

MECHANICAL DATA

- *Case*: DO-41 glass case
- *Weight*: Approx. 0.35 gram

ABSOLUTE MAXIMUM RATINGS(LIMITING VALUES) (T_A=25℃)

	Symbols	*Value*	*Units*
Zener current see table "Characteristics"			
Power dissipation at T_A=25℃	P_{tot}	1[1)]	W
Junction temperature	T_J	200	℃
Storage temperature range	T_{STG}	-65 to+200	℃
1) Valid provided that a distance of 8mm from case is kept at ambient temperature			

ELECTRICAL CHARACTERISTICS (T_A=25℃)

	Symbols	*Min*	*Typ*	*Max*	*Units*
Thermal resistance junction to ambient	$R_{\theta JA}$			170[1)]	K/W
Forward voltage at I_F=200mA	V_F			1.2	V
1) Valid provided that a distance of 8mm from case is kept at ambient temperature					

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Type	Zener Voltage range [1]			Dynamic resistance			Reverse leakage current		Temp Coefficient of zener voltage
	V_{ZNOM}	I_{ZT} for V_{ZT} [2]		r_{zjt} and r_{zjk} at I_{ZK}			I_R [2] at V_R		TK_{VZ}
	V	mA	V	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	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…4.6	<13	<500	1	<3	1	-0.07…+0.01
BZV 85/C 4V7	4.7	45	4.4…5	<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	<7	<400	1	<1	2	0…+0.045
BZV 85/C 6V2	6.2	35	5.8…6.6	<4	<300	1	<1	3	+0.01…+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…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	0.035…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	<500	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…0.1
BZV 85/C 91	91	2.7	85…96	<250	<3000	0.25	<0.5	68	0.07…0.1

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Type	Zener Voltage range 1)			Dynamic resistance			Reverse leakage current		Temp Coefficient of zener voltage
	V_{ZNOM}	I_{ZT} for V_{ZT} 2)		r_{zjt} and r_{zjk} at I_{ZK}			I_R 2) at V_R		TK_{VZ}
	V	mA	V	Ω	Ω	mA	μA	V	%/K
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

Note 1) Tested with pulse tp=20ms
2) Valid provided that leads are kept at ambient temperature at a distance of 8mm from case

Admissible power dissipation versus ambient temperature
(Valid provided that leads at a distance of 10mm from case are kept at ambient temperature)