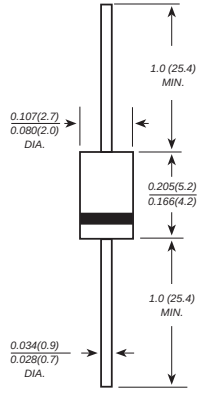
BZX85C-SERIES

ZENER DIODES

Zener Voltage: 2.7-200V Peak Pulse Power: 1.0W

DO-41



Dimensions in inches and (millimeters)

FEATURE

- Low zener impedance
- Low regulation factor
- High temperature soldering guaranteed: 260℃/10S/9.5mm lead length at 5 lbs tension

MECHANICAL DATA

Case: JEDEC DO-41 molded plastic body
Terminals: Plated axial leads, solderable per MIL-STD 750, method 2026
Polarity: Color band denotes cathode end
Mounting Position: Any
Weight: 0.012 ounce,0.33 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.

MDD Catalog Number	*SYMBOLS*	*VALUE*	*UNITS*
Zener Current see Table Characteristics			
Power Dissipation at Tamb=25℃(Note 1)	P_{tot}	1000	mW
Junction Temperature	T_j	200	℃
Storage Temperature Range	T_{STG}	-65 to + 200	℃
Thermal resistance junction ambient(Note 1	$R_{\theta JA}$	170	K/W
Forward voltage at I_F=200mA	V_F	1.2	V

Note 1: Valid provided that leads at a distance of 10mm from case are kept at ambient temperature

MDD ELECTRONIC

ELECTRICAL CHARACTERISTICS (at T_A=25℃ unless otherwise noted)

Device Type	Zener Voltage range			Dynamic resistance			Reverse leakage current		Temp coefficlent of zener voltage
	V_{ZNOM}	I_{ZT}	V_{ZT}	Z_{ZT}	Z_{ZK}	I_{ZK}	I_R at V_R		TK_{VZ}
	V	mA	V	Ohms	Ohms	mA	μA	V	%/℃
BZX85C2V7	2.7	80	2.5...2.9	20	400	1.0	150	1.0	-0.08...-0.05
BZX85C3V0	3.0	80	2.8...3.2	20	400	1.0	100	1.0	-0.08...-0.05
BZX85C3V3	3.3	70	3.1...3.5	20	400	1.0	40	1.0	-0.08...-0.05
BZX85C3V6	3.6	60	3.4...3.8	15	500	1.0	20	1.0	-0.08...-0.05
BZX85C3V9	3.9	60	3.7...4.1	15	500	1.0	10	1.0	-0.07...-0.02
BZX85C4V3	4.3	50	4.0...4.6	13	500	1.0	3	1.0	-0.07...+0.01
BZX85C4V7	4.7	45	4.4...5.0	13	600	1.0	3	1.0	-0.03...+0.04
BZX85C5V1	5.1	45	4.8...5.4	10	500	1.0	1	1.5	-0.01...+0.04
BZX85C5V6	5.6	45	5.2...6.0	7.0	400	1.0	1	2.0	0...0.045
BZX85C6V2	6.2	35	5.8...6.6	4.0	300	1.0	1	3.0	0.01...0.055
BZX85C6V8	6.8	35	6.4...7.2	3.5	300	1.0	1	4.0	0.015...0.06
BZX85C7V5	7.5	35	7.0...7.9	3.0	200	0.5	1	4.5	0.02...0.065
BZX85C8V2	8.2	25	7.7...8.7	5.0	200	0.5	1	6.2	0.03...0.07
BZX85C9V1	9.1	25	8.5...9.6	5.0	200	0.5	1	6.8	0.035...0.075
BZX85C10	10	25	9.4...10.6	7.0	200	0.5	0.5	7.0	0.04...0.08
BZX85C11	11	20	10.4...11.6	8.0	300	0.5	0.5	8.2	0.045...0.08
BZX85C12	12	20	11.4...12.7	9.0	350	0.5	0.5	9.1	0.045...0.085
BZX85C13	13	20	12.4...14.1	10	400	0.5	0.5	10	0.05...0.085
BZX85C15	15	15	13.8...15.6	15	500	0.5	0.5	11	0.055...0.09
BZX85C16	16	15	15.3...17.1	15	500	0.5	0.5	12	0.055...0.09
BZX85C18	18	15	16.8...19.1	20	500	0.5	0.5	13	0.06...0.09
BZX85C20	20	10	18.8...21.2	24	600	0.5	0.5	15	0.06...0.09
BZX85C22	22	10	20.8...23.3	25	600	0.5	0.5	16	0.06...0.095
BZX85C24	24	10	22.8...25.6	25	600	0.5	0.5	18	0.06...0.095
BZX85C27	27	8.0	25.1...28.9	30	750	0.25	0.5	20	0.06...0.095
BZX85C30	30	8.0	28...32	30	1000	0.25	0.5	22	0.06...0.095
BZX85C33	33	8.0	31...35	35	1000	0.25	0.5	24	0.06...0.095
BZX85C36	36	8.0	34...38	40	1000	0.25	0.5	27	0.06...0.095

ELECTRICAL CHARACTERISTICS (at T_A=25℃ unless otherwise noted)

Device Type	Zener Voltage range			Dynamic resistance			Reverse leakage current		Temp coefficlent of zener voltage
	V_{ZNOM}	I_{ZT}	V_{ZT}	Z_{ZT}	Z_{ZK}	I_{ZK}	I_R at V_R		TK_{VZ}
	V	mA	V	Ohms	Ohms	mA	μA	V	%/℃
BZX85C39	39	6.0	37...41	50	1000	0.25	0.5	30	0.06...0.095
BZX85C43	43	6.0	40...46	50	1000	0.25	0.5	33	0.06...0.095
BZX85C47	47	4.0	44...50	90	1500	0.25	0.5	36	0.06...0.095
BZX85C51	51	4.0	48...54	115	1500	0.25	0.5	39	0.06...0.095
BZX85C56	56	4.0	52...60	120	2000	0.25	0.5	43	0.06...0.095
BZX85C62	62	4.0	58...66	125	2000	0.25	0.5	47	0.06...0.095
BZX85C68	68	4.0	64...72	135	2000	0.25	0.5	51	0.06...0.095
BZX85C75	75	4.0	70...79	135	2000	0.25	0.5	56	0.06...0.095
BZX85C82	82	2.7	77...87	200	3000	0.25	0.5	62	0.07...0.10
BZX85C91	91	2.7	85...96	250	3000	0.25	0.5	68	0.07...0.10
BZX85C100	100	2.7	94...106	350	3000	0.25	0.5	75	0.07...0.11
BZX85C110	110	2.7	104...116	450	4000	0.25	0.5	82	0.07...0.11
BZX85C120	120	2.0	114...127	550	4500	0.25	0.5	91	0.07...0.11
BZX85C130	130	2.0	124...141	700	5000	0.25	0.5	100	0.07...0.11
BZX85C150	150	2.0	138...156	1000	6000	0.25	0.5	110	0.07...0.11
BZX85C160	160	1.5	153...171	1100	6500	0.25	0.5	120	0.07...0.11
BZX85C180	180	1.5	168...191	1200	7000	0.25	0.5	130	0.07...0.11
BZX85C200	200	1.5	188...212	1500	8000	0.25	0.5	150	0.07...0.11

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