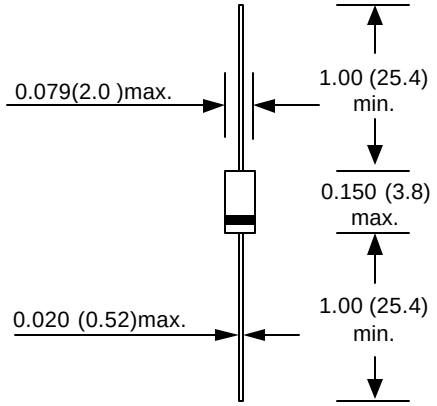
BZX55C2V4 ~ BZX55C200

SILICON ZENER DIODES

V_Z : 2.4 - 200 Volts
P_D : 500 mW

DO - 35



Dimensions in inches and (millimeters)

FEATURES :

* Complete 2.4 to 200 Volts
* High surge current capability
* High peak reverse power dissipation
* High reliability
* Low leakage current

MECHANICAL DATA

* Case : Molded glass
* Lead : Axial lead solderable per MIL-STD-202, method 208 guaranteed
* Polarity : Color band denotes cathode end. When operated in zener mode, cathode will be positive with respect to anode
* Mounting position : Any
* Weight : 0.13 gram

MAXIMUM RATINGS

Rating at 25 °C ambient temperature unless otherwise specified

Rating	Symbol	Value	Unit
Power Dissipation (Note)	P_D	500	mW
Maximum Forward Voltage at I_F =100 mA	V_F	1.0	V
Maximum Thermal Resistance Junction to Ambient Air (Note1)	$R\theta JA$	0.3	K / mW
Junction Temperature Range	T_j	- 55 to + 175	°C
Storage Temperature Range	T_s	- 55 to + 175	°C

Note : 1. Valid provided that leads are kept at ambient temperature at a distance of 8 mm from case.

UPDATE : JANUARY 18, 2002

ELECTRICAL CHARACTERISTICS

Rating at = 25 °C ambient temperature unless otherwise specified

TYPE Number	Zener Voltage V_Z @ I_{ZT}				Maximum Zener Impedance			Maximum Reverse Leakage Current			Temp. coefficient of Zener Voltage
	Nom [1] (V)	Min [2] (V)	Max [2] (V)	I_{ZT} (mA)	Z_{ZT} @ I_{ZT} (Ohms)	Z_{Zk} @ I_{ZK} (Ohms)	I_{ZK} (mA)	I_R (µA)	I_R [2] at V_R (µA)	(V)	TK_{VZ} (% / K)
BZX55C2V4	2.4	2.28	2.56	5	85	600	1	50	100	1	-0.09...-0.06
BZX55C2V7	2.7	2.5	2.9	5	85	600	1	10	50	1	-0.09...-0.06
BZX55C3V0	3.0	2.8	3.2	5	85	600	1	4	40	1	-0.08...-0.05
BZX55C3V3	3.3	3.1	3.5	5	85	600	1	2	40	1	-0.08...-0.05
BZX55C3V6	3.6	3.4	3.8	5	85	600	1	2	40	1	-0.08...-0.05
BZX55C3V9	3.9	3.7	4.1	5	85	600	1	2	40	1	-0.08...-0.05
BZX55C4V3	4.3	4.0	4.6	5	75	600	1	1	20	1	-0.06...-0.03
BZX55C4V7	4.7	4.4	5.0	5	60	600	1	0.5	10	1	-0.05...+0.02
BZX55C5V1	5.1	4.8	5.4	5	35	550	1	0.1	2	1	-0.02...+0.02
BZX55C5V6	5.6	5.2	6.0	5	25	450	1	0.1	2	1	-0.05...+0.05
BZX55C6V2	6.2	5.8	6.6	5	10	200	1	0.1	2	2	0.03...0.06
BZX55C6V8	6.8	6.4	7.2	5	8	150	1	0.1	2	3	0.03...0.07
BZX55C7V5	7.5	7.0	7.9	5	7	50	1	0.1	2	5	0.03...0.07
BZX55C8V2	8.2	7.7	8.7	5	7	50	1	0.1	2	6.2	0.03...0.08
BZX55C9V1	9.1	8.5	9.6	5	10	50	1	0.1	2	6.8	0.03...0.09
BZX55C10	10	9.4	10.6	5	15	70	1	0.1	2	7.5	0.03...0.10
BZX55C11	11	10.4	11.6	5	20	70	1	0.1	2	8.2	0.03...0.11
BZX55C12	12	11.4	12.7	5	20	90	1	0.1	2	9.1	0.03...0.11
BZX55C13	13	12.4	14.1	5	26	110	1	0.1	2	10	0.03...0.11
BZX55C15	14	13.8	15.6	5	30	110	1	0.1	2	11	0.03...0.11
BZX55C16	16	15.3	17.1	5	40	170	1	0.1	2	12	0.03...0.11
BZX55C18	18	16.8	19.1	5	50	170	1	0.1	2	13	0.03...0.11
BZX55C20	20	18.8	21.2	5	55	220	1	0.1	2	15	0.03...0.11
BZX55C22	22	20.8	23.3	5	55	220	1	0.1	2	16	0.04...0.12
BZX55C24	24	22.8	25.6	5	80	220	1	0.1	2	18	0.04...0.12
BZX55C27	27	25.1	28.9	5	80	220	1	0.1	2	20	0.04...0.12
BZX55C30	30	28	32	5	80	220	1	0.1	2	22	0.04...0.12
BZX55C33	33	31	35	5	80	220	1	0.1	2	24	0.04...0.12
BZX55C36	36	34	38	5	80	220	1	0.1	2	27	0.04...0.12
BZX55C39	39	37	41	2.5	90	500	0.5	0.1	5	30	0.04...0.12
BZX55C43	43	40	46	2.5	90	500	0.5	0.1	5	33	0.04...0.12
BZX55C47	47	44	50	2.5	110	600	0.5	0.1	5	36	0.04...0.12
BZX55C51	51	48	54	2.5	125	700	0.5	0.1	10	39	0.04...0.12
BZX55C56	56	52	60	2.5	135	700	0.5	0.1	10	43	0.04...0.12
BZX55C62	62	58	66	2.5	150	1000	0.5	0.1	10	47	0.04...0.12
BZX55C68	68	64	72	2.5	200	1000	0.5	0.1	10	51	0.04...0.12
BZX55C75	75	70	79	2.5	250	1000	0.5	0.1	10	56	0.04...0.12
BZX55C82	82	77	87	2.5	300	1500	0.25	0.1	10	62	0.05...0.12
BZX55C91	91	85	96	1	450	2000	0.1	0.1	10	68	0.05...0.12
BZX55C100	100	94	106	1	450	5000	0.1	0.1	10	75	0.05...0.12
BZX55C110	110	104	116	1	600	5000	0.1	0.1	10	82	0.05...0.12
BZX55C120	120	114	127	1	800	5500	0.1	0.1	10	91	0.05...0.12
BZX55C130	130	124	141	1	950	6000	0.1	0.1	10	100	0.05...0.12
BZX55C150	150	138	156	1	1250	6500	0.1	0.1	10	110	0.05...0.12
BZX55C160	160	153	171	1	1400	7000	0.1	0.1	10	120	0.05...0.12
BZX55C180	180	168	191	1	1700	8500	0.1	0.1	10	130	0.05...0.12
BZX55C200	200	188	212	1	2000	10000	0.1	0.1	10	150	0.05...0.12

Note 1) Tested with pulses tp = 20 ms

2) Valid Provided that leads are kept at ambient temperature at a distance of 8 mm from case