BZX55C(A)(B)(D)2V4 THRU BZX55C(A)(B)(D)47

ZENER DIODES

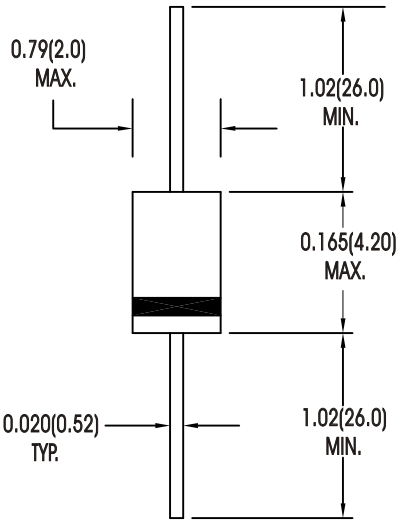
FEATURES:

- Standard Zener voltage tolerance is ±5% AND
  SUFFIX "BZX55A" FOR ±1%
  SUFFIX "BZX55B" FOR ±2%
  SUFFIX "BZX55C" FOR ±5%
  SUFFIX "BZX55D" FOR ±20%
- These diodes are also available in DO-35 case with the type designation BZX55C(A)(B)(D)2V4..... BZX55C(A)(B)(D)47

MECHANICAL DATA

Case: AIXAL Molded Glass

DO-35



Dimensions in inches and (millimeters)

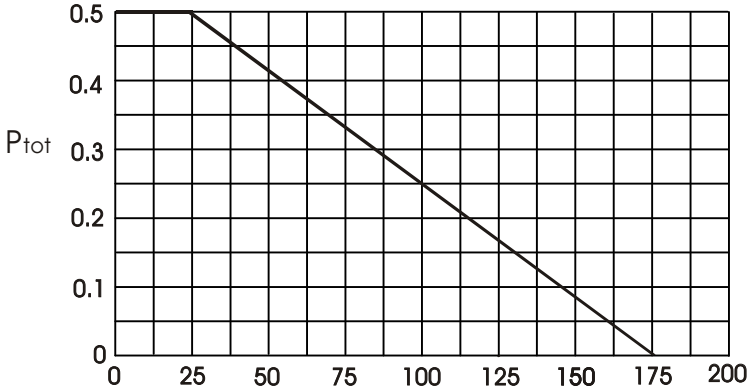
MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

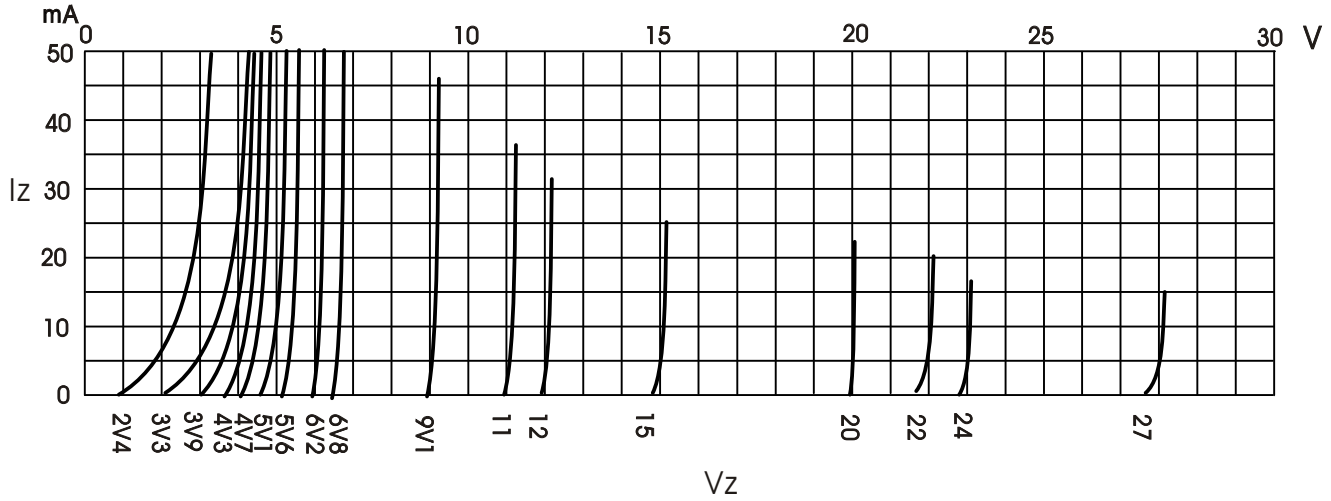
Characteristic	Symbol	Value	Units
Power Dissipation at Tamb=25 ℃	Ptot	0.5[1)]	W
Z-current	Iz	Pv/Vz	mA
Tremal Resistance Junction to Ambient Air	RthJ-A	300[2)]	K/W
Maximum instantaneous forward voltage drop at IF=200 mADC	V_F	1.5	Volts
Junction temperature	T_J	175	℃
Storage temperature range	Tstg	-65 to+175	℃

1) Valid provided that leads are kept at ambient temperature at adistance of 8mm from case
2) Valid provided that leads at distance of 10mm from case are kept ar ambient temperature

CHANGE IN THE POWER DISSIPATION DUE TO THE AMBIENT TEMPERATURE



BREAKDOWN CHARACTERISTICS



ZENER DIODES BZX55C(A)(B)(D)2V4 THRU BZX55C(A)(B)(D)47

Device Type	Nominal Zener Voltage Vz at Izt	Test Current IzT	Maximum Zener Impedance			Maximum Reverse Leakage Current		Typical Temperature coefficient	Maximum Regulator Current IzM
			ZzT at IzT	ZzK at IzK	IzK	IR	Test Voltage Suffix B		
	Volts	mA	Ω	Ω	mA	μA	Volts	%/K	mA
BZX55C2V4	2.28-2.56	5	85	600	1.0	50	1.0	-0.090~-0.06	150
BZX55C2V7	2.5-2.9	5	85	600	1.0	10	1.0	-0.090~-0.06	135
BZX55C3V0	2.8-3.2	5	85	600	1.0	4	1.0	-0.080~-0.05	125
BZX55C3V3	3.1-3.5	5	85	600	1.0	2	1.0	-0.080~-0.05	115
BZX55C3V6	3.4-3.8	5	85	600	1.0	2	1.0	-0.080~-0.05	105
BZX55C3V9	3.7-4.1	5	85	600	1.0	2	1.0	-0.080~-0.05	95
BZX55C4V3	4.0-4.6	5	75	600	1.0	1	1.0	-0.060~-0.03	90
BZX55C4V7	4.4-5.0	5	60	600	1.0	0.5	1.0	-0.050~+0.02	85
BZX55C5V1	4.8-5.4	5	35	550	1.0	0.1	1.0	-0.020~+0.02	80
BZX55C5V6	5.2-6.0	5	25	450	1.0	0.1	1.0	-0.050~+0.05	70
BZX55C6V2	5.8-6.6	5	10	200	1.0	0.1	2.0	+0.030~+0.06	64
BZX55C6V8	6.4-7.2	5	8	150	1.0	0.1	3.0	+0.030~+0.07	58
BZX55C7V5	7.0-7.9	5	7	50	1.0	0.1	5.0	+0.030~+0.07	53
BZX55C8V2	7.7-8.7	5	7	50	1.0	0.1	6.2	+0.030~+0.08	47
BZX55C9V1	8.5-9.6	5	10	50	1.0	0.1	6.8	+0.030~+0.09	43
BZX55C10	9.4-10.6	5	15	70	1.0	0.1	7.5	+0.030~+0.10	40
BZX55C11	10.4-11.6	5	20	70	1.0	0.1	8.2	+0.030~+0.11	36
BZX55C12	11.4-12.7	5	20	90	1.0	0.1	9.0	+0.030~+0.11	32
BZX55C13	12.4-14.1	5	26	110	1.0	0.1	10	+0.030~+0.11	29
BZX55C15	13.8-15.6	5	30	110	1.0	0.1	11	+0.030~+0.11	27
BZX55C16	15.3-17.1	5	40	170	1.0	0.1	12	+0.030~+0.11	24
BZX55C18	16.8-19.1	5	50	170	1.0	0.1	13	+0.030~+0.11	21
BZX55C20	18.8-21.2	5	55	220	1.0	0.1	15	+0.030~+0.11	20
BZX55C22	20.8-23.3	5	55	220	1.0	0.1	16	+0.040~+0.12	18
BZX55C24	22.8-25.6	5	80	220	1.0	0.1	18	+0.040~+0.12	16
BZX55C27	25.1-28.9	5	80	220	1.0	0.1	20	+0.040~+0.12	14
BZX55C30	28-32	5	80	220	1.0	0.1	22	+0.040~+0.12	13
BZX55C33	31-35	5	80	220	1.0	0.1	24	+0.040~+0.12	12
BZX55C36	34-38	5	80	220	1.0	0.1	27	+0.040~+0.12	11
BZX55C39	37-41	2.5	90	500	0.5	0.1	30	+0.040~+0.12	10
BZX55C43	40-46	2.5	90	600	0.5	0.1	33	+0.040~+0.12	9.2
BZX55C47	44-50	2.5	110	700	0.5	0.1	36	+0.040~+0.12	8.5

1) STANDARD VOLTAGE TOLERANCE IS ±5% AND
SUFFIX "BZX55A" FOR ± 1%
SUFFIX "BZX55B"X FOR ±2%
SUFFIX "BZX55C" FOR ±5%
SUFFIX "BZX55D" FOR ±20%

ZENER DIODE MARKING SYSTEM

$\frac{\text{BZX}}{1*}$ $\frac{\text{C3V6}}{2*}$

1* Type NO

2* Vz of zener diode, V code is instead of decimal point. E.g., 3V6=3.6V