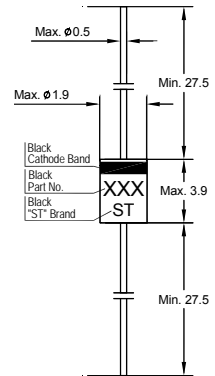


# BZX55T Series

## SILICON EPITAXIAL PLANAR ZENER DIODES

### Features

- Very sharp reverse characteristic
- Low reverse current level
- Very high stability
- Low noise
- Available with tighter tolerances



Glass Case DO-35  
Dimensions in mm

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

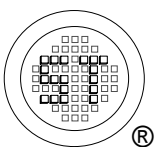
Parameter	Symbol	Value	Unit
Power Dissipation	$P_{tot}$	500	mW
Junction Temperature	$T_j$	175	$^\circ\text{C}$
Storage Temperature Range	$T_s$	- 65 to + 175	$^\circ\text{C}$

### Maximum Thermal Resistance ( $T_a = 25\text{ }^\circ\text{C}$ )

Parameter	Symbol	Max.	Unit
Thermal Resistance Junction to Ambient Air	$R_{thJA}$	300	K/W

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

Parameter	Symbol	Max.	Unit
Forward Voltage at $I_F = 200\text{ mA}$	$V_F$	1.5	V



**SEMTECH ELECTRONICS LTD.**

(Subsidiary of Sino-Tech International Holdings Limited, a company  
listed on the Hong Kong Stock Exchange, Stock Code: 724)



ISO/TS 16949 : 2002  
Certificate No. 05103



ISO 14001:2004  
Certificate No. 7116

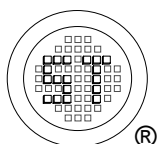


ISO 9001:2000  
Certificate No. 0506098

Dated : 21/06/2007

# BZX55T Series

Type	$V_{Zmin}^{2)}$	$V_{Zmax}^{2)}$	$r_{Zmax}$	at $I_Z$	$I_{Rmax}$	at $V_R$	$I_{Rmax}^{1)}$	at $V_R^{1)}$
	V	V	$\Omega$	mA	$\mu A$	V	$\mu A$	V
BZX55T2V4	2.3	2.6	100	5	5	0.5	50	1
BZX55T2V4A	2.3	2.5	100	5	5	0.5	50	1
BZX55T2V4B	2.4	2.6	100	5	5	0.5	50	1
BZX55T2V7	2.5	2.9	100	5	5	0.5	10	1
BZX55T2V7A	2.5	2.7	100	5	5	0.5	10	1
BZX55T2V7B	2.6	2.8	100	5	5	0.5	10	1
BZX55T2V7C	2.7	2.9	100	5	5	0.5	10	1
BZX55T3V0	2.8	3.2	100	5	5	0.5	6	1
BZX55T3V0A	2.8	3	100	5	5	0.5	6	1
BZX55T3V0B	2.9	3.1	100	5	5	0.5	6	1
BZX55T3V0C	3	3.2	100	5	5	0.5	6	1
BZX55T3V3	3.1	3.5	100	5	5	1	2	0.8
BZX55T3V3A	3.1	3.3	100	5	5	1	2	0.8
BZX55T3V3B	3.2	3.4	100	5	5	1	2	0.8
BZX55T3V3C	3.3	3.5	100	5	5	1	2	0.8
BZX55T3V6	3.4	3.8	100	5	5	1	2	0.8
BZX55T3V6A	3.4	3.6	100	5	5	1	2	0.8
BZX55T3V6B	3.5	3.7	100	5	5	1	2	0.8
BZX55T3V6C	3.6	3.8	100	5	5	1	2	0.8
BZX55T3V9	3.7	4.1	100	5	5	1	2	0.8
BZX55T3V9A	3.7	3.9	100	5	5	1	2	0.8
BZX55T3V9B	3.8	4	100	5	5	1	2	0.8
BZX55T3V9C	3.9	4.1	100	5	5	1	2	0.8
BZX55T4V3	4	4.5	100	5	5	1.5	1	1
BZX55T4V3A	4	4.2	100	5	5	1.5	1	1
BZX55T4V3B	4.1	4.3	100	5	5	1.5	1	1
BZX55T4V3C	4.2	4.4	100	5	5	1.5	1	1
BZX55T4V3D	4.3	4.5	100	5	5	1.5	1	1
BZX55T4V7	4.4	4.9	100	5	5	2	0.5	1
BZX55T4V7A	4.4	4.6	100	5	5	2	0.5	1
BZX55T4V7B	4.5	4.7	100	5	5	2	0.5	1
BZX55T4V7C	4.6	4.8	100	5	5	2	0.5	1
BZX55T4V7D	4.7	4.9	100	5	5	2	0.5	1
BZX55T5V1	4.8	5.3	100	5	5	2	0.1	1
BZX55T5V1A	4.8	5	100	5	5	2	0.1	1
BZX55T5V1B	4.9	5.1	100	5	5	2	0.1	1
BZX55T5V1C	5	5.2	100	5	5	2	0.1	1
BZX55T5V1D	5.1	5.3	100	5	5	2	0.1	1
BZX55T5V6	5.2	5.9	40	5	5	2	0.1	1
BZX55T5V6A	5.2	5.5	40	5	5	2	0.1	1
BZX55T5V6B	5.3	5.6	40	5	5	2	0.1	1
BZX55T5V6C	5.4	5.7	40	5	5	2	0.1	1
BZX55T5V6D	5.5	5.8	40	5	5	2	0.1	1
BZX55T5V6E	5.6	5.9	40	5	5	2	0.1	1
BZX55T6V2	5.7	6.6	15	5	1	3	0.1	2
BZX55T6V2A	5.7	6	15	5	1	3	0.1	2
BZX55T6V2B	5.8	6.1	15	5	1	3	0.1	2
BZX55T6V2C	6	6.3	15	5	1	3	0.1	2
BZX55T6V2D	6.1	6.4	15	5	1	3	0.1	2
BZX55T6V2E	6.3	6.6	15	5	1	3	0.1	2



**SEMTECH ELECTRONICS LTD.**

(Subsidiary of Sino-Tech International Holdings Limited, a company listed on the Hong Kong Stock Exchange, Stock Code: 724)

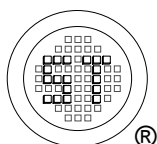


ISO/TS 16949 : 2002 Certificate No. 05103  
 ISO 14001:2004 Certificate No. 7116  
 ISO 9001:2000 Certificate No. 0506098

Dated : 21/06/2007

# BZX55T Series

Type	$V_{Zmin}^{2)}$	$V_{Zmax}^{2)}$	$r_{Zmax}$	at $I_Z$	$I_{Rmax}$	at $V_R$	$I_{Rmax}^{1)}$	at $V_R^{1)}$
	V	V	$\Omega$	mA	$\mu A$	V	$\mu A$	V
BZX55T6V8	6.4	7.2	15	5	1	3.5	0.1	3
BZX55T6V8A	6.4	6.7	15	5	1	3.5	0.1	3
BZX55T6V8B	6.6	6.9	15	5	1	3.5	0.1	3
BZX55T6V8C	6.7	7	15	5	1	3.5	0.1	3
BZX55T6V8D	6.9	7.2	15	5	1	3.5	0.1	3
BZX55T7V5	7	7.9	15	5	1	5.0	0.1	3.5
BZX55T7V5A	7	7.3	15	5	1	5.0	0.1	3.5
BZX55T7V5B	7.2	7.6	15	5	1	5.0	0.1	3.5
BZX55T7V5C	7.3	7.7	15	5	1	5.0	0.1	3.5
BZX55T7V5D	7.5	7.9	15	5	1	5.0	0.1	3.5
BZX55T8V2	7.7	8.7	20	5	1	6.2	0.1	4
BZX55T8V2A	7.7	8.1	20	5	1	6.2	0.1	4
BZX55T8V2B	7.9	8.3	20	5	1	6.2	0.1	4
BZX55T8V2C	8.1	8.5	20	5	1	6.2	0.1	4
BZX55T8V2D	8.3	8.7	20	5	1	6.2	0.1	4
BZX55T9V1	8.5	9.7	20	5	1	6.8	-	-
BZX55T9V1A	8.5	8.9	20	5	1	6.8	-	-
BZX55T9V1B	8.7	9.1	20	5	1	6.8	-	-
BZX55T9V1C	8.9	9.3	20	5	1	6.8	-	-
BZX55T9V1D	9.1	9.5	20	5	1	6.8	-	-
BZX55T9V1E	9.3	9.7	20	5	1	6.8	-	-
BZX55T10	9.5	10.6	25	5	1	7.5	-	-
BZX55T10A	9.5	9.9	25	5	1	7.5	-	-
BZX55T10B	9.7	10.1	25	5	1	7.5	-	-
BZX55T10C	9.9	10.3	25	5	1	7.5	-	-
BZX55T10D	10.2	10.6	25	5	1	7.5	-	-
BZX55T11	10.4	11.6	25	5	1	8.2	-	-
BZX55T11A	10.4	10.8	25	5	1	8.2	-	-
BZX55T11B	10.7	11.1	25	5	1	8.2	-	-
BZX55T11C	10.9	11.3	25	5	1	8.2	-	-
BZX55T11D	11.1	11.6	25	5	1	8.2	-	-
BZX55T12	11.4	12.7	35	5	1	9.5	-	-
BZX55T12A	11.4	11.9	35	5	1	9.5	-	-
BZX55T12B	11.6	12.1	35	5	1	9.5	-	-
BZX55T12C	11.9	12.4	35	5	1	9.5	-	-
BZX55T12D	12.2	12.7	35	5	1	9.5	-	-
BZX55T12X	11.44	12.03	35	5	1	9.5	-	-
BZX55T13	12.4	13.4	35	5	1	10	-	-
BZX55T13A	12.4	12.9	35	5	1	10	-	-
BZX55T13B	12.6	13.1	35	5	1	10	-	-
BZX55T13C	12.9	13.4	35	5	1	10	-	-
BZX55T14	13.2	14.3	35	5	1	11	-	-
BZX55T14A	13.2	13.7	35	5	1	11	-	-
BZX55T14B	13.5	14	35	5	1	11	-	-
BZX55T14C	13.8	14.3	35	5	1	11	-	-
BZX55T15	14.1	15.5	40	5	1	11.5	-	-
BZX55T15A	14.1	14.7	40	5	1	11.5	-	-
BZX55T15B	14.5	15.1	40	5	1	11.5	-	-
BZX55T15C	14.9	15.5	40	5	1	11.5	-	-
BZX55T15X	14.35	15.09	40	5	1	11.5	-	-



**SEMTECH ELECTRONICS LTD.**

(Subsidiary of Sino-Tech International Holdings Limited, a company listed on the Hong Kong Stock Exchange, Stock Code: 724)



ISO/TS 16949 : 2002  
Certificate No. 05103



ISO 14001:2004  
Certificate No. 7116



ISO 9001:2000  
Certificate No. 0506098

Dated : 21/06/2007

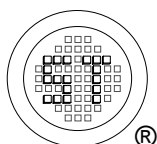
# BZX55T Series

Type	$V_{Zmin}^{2)}$	$V_{Zmax}^{2)}$	$r_{Zmax}$	at $I_Z$	$I_{Rmax}$	at $V_R$	$I_{Rmax}^{1)}$	at $V_R^{1)}$
	V	V	$\Omega$	mA	$\mu A$	V	$\mu A$	V
BZX55T16	15.3	17.1	45	5	1	12	-	-
BZX55T16A	15.3	15.9	45	5	1	12	-	-
BZX55T16B	15.7	16.5	45	5	1	12	-	-
BZX55T16C	16.3	17.1	45	5	1	12	-	-
BZX55T18	16.9	19	55	5	1	13	-	-
BZX55T18A	16.9	17.7	55	5	1	13	-	-
BZX55T18B	17.5	18.3	55	5	1	13	-	-
BZX55T18C	18.1	19	55	5	1	13	-	-
BZX55T20	18.8	21.2	60	2	1	15	-	-
BZX55T20A	18.8	19.7	60	2	1	15	-	-
BZX55T20B	19.5	20.4	60	2	1	15	-	-
BZX55T20C	20.2	21.2	60	2	1	15	-	-
BZX55T22	20.9	23.3	65	2	1	17	-	-
BZX55T22A	20.9	21.9	65	2	1	17	-	-
BZX55T22B	21.6	22.6	65	2	1	17	-	-
BZX55T22C	22.3	23.3	65	2	1	17	-	-
BZX55T24	22.9	25.5	70	2	1	19	-	-
BZX55T24A	22.9	24	70	2	1	19	-	-
BZX55T24B	23.6	24.7	70	2	1	19	-	-
BZX55T24C	24.3	25.5	70	2	1	19	-	-
BZX55T24X	22.61	23.77	70	2	1	19	-	-
BZX55T27	25.2	28.6	80	2	1	21	-	-
BZX55T27A	25.2	26.6	80	2	1	21	-	-
BZX55T27B	26.2	27.6	80	2	1	21	-	-
BZX55T27C	27.2	28.6	80	2	1	21	-	-
BZX55T27X	26.99	28.39	80	2	1	21	-	-
BZX55T30	28.2	31.6	100	2	1	23	-	-
BZX55T30A	28.2	29.6	100	2	1	23	-	-
BZX55T30B	29.2	30.6	100	2	1	23	-	-
BZX55T30C	30.2	31.6	100	2	1	23	-	-
BZX55T30X	29.02	30.51	100	2	1	23	-	-
BZX55T33	31.2	34.5	120	2	1	25	-	-
BZX55T33A	31.2	32.6	120	2	1	25	-	-
BZX55T33B	32.2	33.6	120	2	1	25	-	-
BZX55T33C	33.2	34.5	120	2	1	25	-	-
BZX55T36	34.2	38	140	2	1	27	-	-
BZX55T36A	34.2	35.7	140	2	1	27	-	-
BZX55T36B	35.3	36.8	140	2	1	27	-	-
BZX55T36C	36.4	38	140	2	1	27	-	-
BZX55T36X	35.36	37.19	140	2	1	27	-	-

<sup>1)</sup> Additional measurement

Please note: Additional measurement of voltage group 9V1 to 36V at 95%  $V_{Zmin} = < 35$  nA at  $T_j 25^\circ C$

<sup>2)</sup> Tested with pulses  $t_p = 20$  ms.



**SEMTECH ELECTRONICS LTD.**

(Subsidiary of Sino-Tech International Holdings Limited, a company listed on the Hong Kong Stock Exchange, Stock Code: 724)



ISO/TS 16949 : 2002 Certificate No. 05103  
 ISO 14001:2004 Certificate No. 7116  
 ISO 9001:2000 Certificate No. 0506098

Dated : 21/06/2007