



# BZX85C3V3 THRU BZX85C56

## 1.3W EPITAXIAL ZENER DIODE

### FEATURES

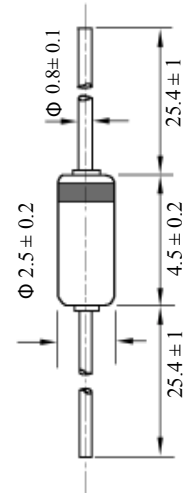
- Low profile package
- Built-in strain relief
- Low inductance
- High temperature soldering : 260°C /10 seconds at terminals
- Glass package has Underwriters Laboratory Flammability Classification
- In compliance with EU RoHS 2002/95/EC directives

### MECHANICAL DATA

- Case: Molded Glass DO-41G
- Terminals: Axial leads, solderable per MIL-STD-750, Method 2026 guaranteed
- Polarity: Color band denotes positive end
- Mounting position: Any
- Weight: 0.012 ounce, 0.336 gram



### DO-41(GLASS)



All Dimensions in mm

### ABSOLUTE MAXIMUM RATINGS(LIMITING VALUES)(TA=25°C)

	Symbols	Value	Units
Zener current see table "Characteristics"			
Power dissipation at TA=50°C	P <sub>tot</sub>	1.3 1)	W
Junction temperature	T <sub>J</sub>	175	°C
Storage temperature range	T <sub>STG</sub>	-65 to +200	°C

1)Valid provided that a distance of 8mm from case are kept at ambient temperature

### ELECTRICAL CHARACTERISTICS(TA=25°C)

	Symbols	Min	Typ	Max	Units
Thermal resistance junction to ambient	R <sub>thA</sub>			170 1)	°C/W
Forward voltage at IF=200mA	V <sub>F</sub>			1.2	V

1) Valid provided that a distance at 8mm from case are kept at ambient temperature



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Type	V <sub>Znom</sub>	I <sub>ZT</sub>	for V <sub>ZT</sub> and	r <sub>zjT</sub>	r <sub>zjK</sub> @ I <sub>ZK</sub>	I <sub>R</sub> @ V <sub>R</sub>	TK <sub>VZ</sub>
BZX85C	V	mA	V <sup>1)</sup>	Ω	Ω	μA	%/K
2V7	2.7	80	2.5~2.9	<20	<400	1	-0.09~-0.06
3V0	3.0	80	2.8~3.2	<20	<400	1	-0.08~-0.05
3V3	3.3	80	3.1~3.5	<20	<400	1	-0.08~-0.05
3V6	3.6	60	3.4~3.8	<20	<500	1	-0.08~-0.05
3V9	3.9	60	3.7~4.1	<15	<500	1	-0.08~-0.05
4V3	4.3	50	4.0~4.6	<13	<500	1	-0.06~-0.03
4V7	4.7	45	4.4~5.0	<13	<500	1	-0.05~+0.02
5V1	5.1	45	4.8~5.4	<10	<500	1	-0.02~+0.02
5V6	5.6	45	5.2~6.0	<7	<400	1	-0.05~+0.05
6V2	6.2	35	5.8~6.6	<4	<300	1	0.03~0.06
6V8	6.8	35	6.4~7.2	<3.5	<300	1	0.03~0.07
7V5	7.5	35	7.0~7.9	<3	<200	0.5	0.03~0.07
8V2	8.2	25	7.7~8.7	<5	<200	0.5	0.03~0.08
9V1	9.1	25	8.5~9.6	<5	<200	0.5	0.03~0.09
10	10	25	9.4~10.6	<7	<200	0.5	0.03~0.1
11	11	20	10.4~11.6	<8	<300	0.5	0.03~0.11
12	12	20	11.4~12.7	<9	<350	0.5	0.03~0.11
13	13	20	12.4~14.1	<10	<400	0.5	0.03~0.11
15	15	15	13.8~15.6	<15	<500	0.5	0.03~0.11
16	16	15	15.3~17.1	<15	<500	0.5	0.03~0.11
18	18	15	16.8~19.1	<20	<500	0.5	0.03~0.11
20	20	10	18.8~21.2	<24	<600	0.5	0.03~0.11
22	22	10	20.8~23.3	<25	<600	0.5	0.04~0.12
24	24	10	22.8~25.6	<25	<600	0.5	0.04~0.12
27	27	8	25.1~28.9	<30	<750	0.25	0.04~0.12
30	30	8	28~32	<30	<1000	0.25	0.04~0.12
33	33	8	31~35	<35	<1000	0.25	0.04~0.12
36	36	8	34~38	<40	<1000	0.25	0.04~0.12
39	39	6	37~41	<50	<1000	0.25	0.04~0.12
43	43	6	40~46	<50	<1000	0.25	0.04~0.12
47	47	4	44~50	<90	<1500	0.25	0.04~0.12
51	51	4	48~54	<115	<1500	0.25	0.04~0.12
56	56	4	52~60	<120	<2000	0.25	0.04~0.12



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## RATINGS AND CHARACTERISTIC CURVES

Characteristics ( $T_i=25^\circ\text{C}$  unless otherwise specified)

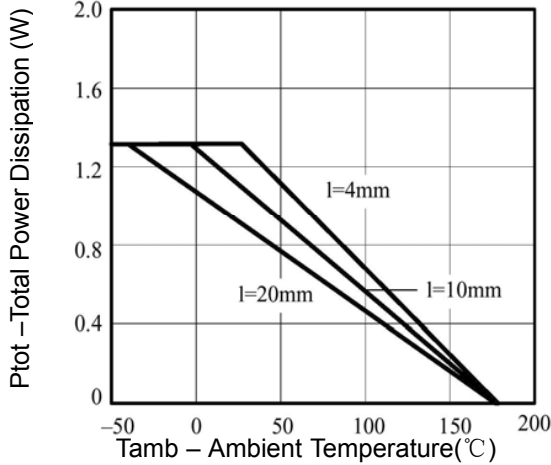


Figure1. Total Power Dissipation vs. Ambient Temperature

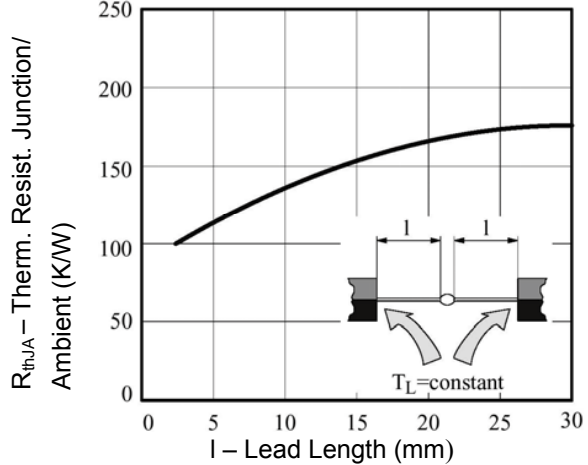


Figure2. Thermal Resistance vs. Lead Length

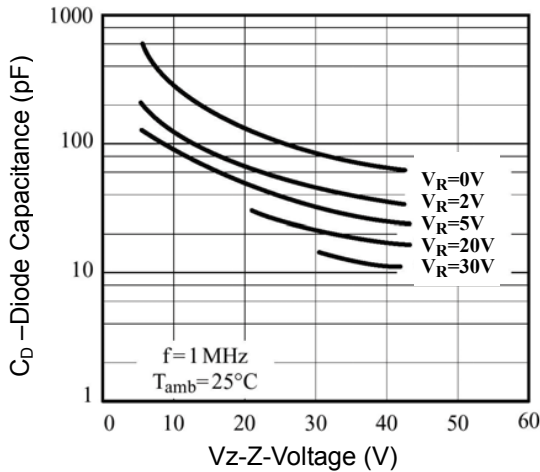


Figure3. Diode Capacitance vs. Z-Voltage

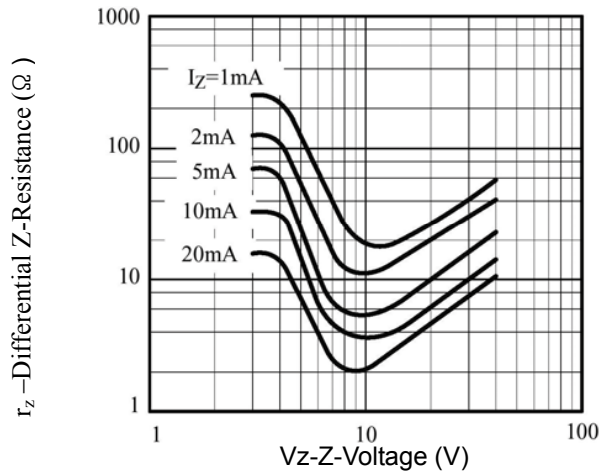


Figure4. Differential Z-Resistance vs. Z-Voltage

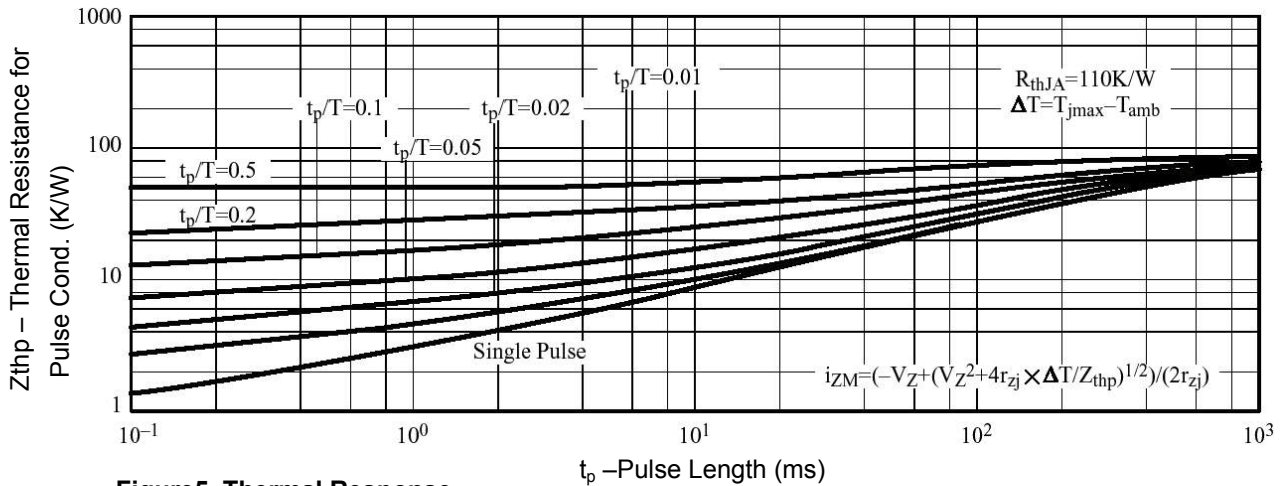


Figure5. Thermal Response