



Micro Commercial Components



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BZV55C2V0 THRU BZV55C75

500 mW Zener Diode 2.0 to 75 Volts

Features

- Small surface mounting type
- High reliability
- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix designates RoHS Compliant. See ordering information)
- Moisture Sensitivity Level 1

Absolute Maximum Ratings

| Symbol | Rating | Rating | Unit |
|-----------|---------------------------|-------------|------|
| P_D | Power dissipation | 500 | mW |
| I_Z | Z-current | P_V/V_Z | mA |
| T_J | Junction Temperature | -55 to +150 | °C |
| T_{STG} | Storage Temperature Range | -55 to +150 | °C |

Maximum Thermal Resistance

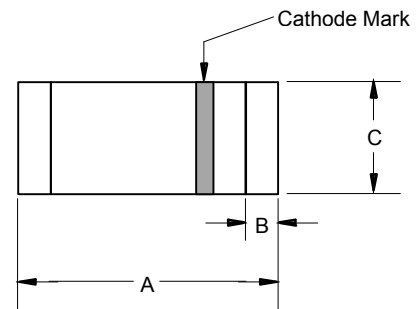
| Symbol | Rating | Rating | Unit |
|-----------------|------------------|--------|------|
| $R_{\theta JA}$ | Junction Ambient | 500 | K/W |

Electrical Characteristics

| Symbol | Rating | Rating | Unit |
|--------|---|--------|------|
| V_F | Maximum Forward Voltage ($I_F=200mA_{dc}$) | 1.5 | V |

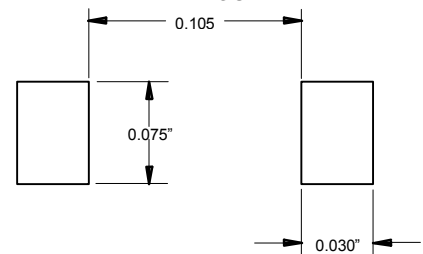
Notes:1. Lead in Glass Exemption Applied, see EU Directive Annex 5.

MiniMELF



| DIM | DIMENSIONS | | | | NOTE |
|-----|------------|------|------|------|------|
| | INCHES | | MM | | |
| A | .130 | .146 | 3.30 | 3.70 | |
| B | .008 | .016 | .20 | .40 | |
| C | .055 | .059 | 1.40 | 1.50 | ∅ |

SUGGESTED SOLDER PAD LAYOUT



BZV55C2V0 thru BZV55C75

ELECTRICAL CHARACTERISTICS @25°C

| Type | V _Z VOLTS | I _{ZT} for V _{ZT} and | | r _{ZT} | r _{ZK} at I _{ZK} | | REVERSE CURRENT I _R (Max) @ V _R | | | TK _{VZ} |
|-----------|-------------------------|---|------------------|-----------------|------------------------------------|----------|--|-------------------|-----|------------------|
| | Nom | mA | V ⁽¹⁾ | Ω | Ω | mA (Max) | uA | uA ⁽²⁾ | V | %/K |
| BZV55C2V0 | 2.0 | 5.0 | 1.9-2.1 | 100 | 600 | 1.0 | <150 | <300 | 1.0 | -0.09 to -0.06 |
| BZV55C2V2 | 2.2 | 5.0 | 2.09-2.31 | 100 | 600 | 1.0 | <150 | <300 | 1.0 | -0.09 to -0.06 |
| BZV55C2V4 | 2.4 | 5.0 | 2.28-2.56 | <85 | 600 | 1.0 | <50 | <100 | 1.0 | -0.09 to -0.06 |
| BZV55C2V7 | 2.7 | 5.0 | 2.5-2.9 | <85 | 600 | 1.0 | <10 | <50 | 1.0 | -0.09 to -0.06 |
| BZV55C3V0 | 3.0 | 5.0 | 2.8-3.2 | <85 | 600 | 1.0 | <4.0 | <40 | 1.0 | -0.08 to -0.05 |
| BZV55C3V3 | 3.3 | 5.0 | 3.1-3.5 | <85 | 600 | 1.0 | <2.0 | <40 | 1.0 | -0.08 to -0.05 |
| BZV55C3V6 | 3.6 | 5.0 | 3.4-3.8 | <85 | 600 | 1.0 | <2.0 | <40 | 1.0 | -0.08 to -0.05 |
| BZV55C3V9 | 3.9 | 5.0 | 3.7-4.1 | <85 | 600 | 1.0 | <2.0 | <40 | 1.0 | -0.08 to -0.05 |
| BZV55C4V3 | 4.3 | 5.0 | 4.0-4.6 | <75 | 600 | 1.0 | <1.0 | <20 | 1.0 | -0.06 to -0.03 |
| BZV55C4V7 | 4.7 | 5.0 | 4.4-5.0 | <60 | 600 | 1.0 | <0.5 | <10 | 1.0 | -0.05 to +0.02 |
| BZV55C5V1 | 5.1 | 5.0 | 4.8-5.4 | <35 | 550 | 1.0 | <0.1 | <2.0 | 1.0 | -0.02 to +0.02 |
| BZV55C5V6 | 5.6 | 5.0 | 5.2-6.0 | <25 | 450 | 1.0 | <0.1 | <2.0 | 1.0 | -0.05 to +0.05 |
| BZV55C6V2 | 6.2 | 5.0 | 5.8-6.6 | <10 | 200 | 1.0 | <0.1 | <2.0 | 2.0 | 0.03 to 0.06 |
| BZV55C6V8 | 6.8 | 5.0 | 6.4-7.2 | <8 | 150 | 1.0 | <0.1 | <2.0 | 3.0 | 0.03 to 0.07 |
| BZV55C7V5 | 7.5 | 5.0 | 7.0-7.9 | <7 | 50 | 1.0 | <0.1 | <2.0 | 5.0 | 0.03 to 0.07 |
| BZV55C8V2 | 8.2 | 5.0 | 7.7-8.7 | <7 | 50 | 1.0 | <0.1 | <2.0 | 6.2 | 0.03 to 0.08 |
| BZV55C9V1 | 9.1 | 5.0 | 8.5-9.6 | <10 | 50 | 1.0 | <0.1 | <2.0 | 6.8 | 0.03 to 0.09 |
| BZV55C10 | 10 | 5.0 | 9.4-10.6 | <15 | 70 | 1.0 | <0.1 | <2.0 | 7.5 | 0.03 to 0.1 |
| BZV55C11 | 11 | 5.0 | 10.4-11.6 | <20 | 70 | 1.0 | <0.1 | <2.0 | 8.2 | 0.03 to 0.11 |
| BZV55C12 | 12 | 5.0 | 11.4-12.7 | <20 | 90 | 1.0 | <0.1 | <2.0 | 9.1 | 0.03 to 0.11 |
| BZV55C13 | 13 | 5.0 | 12.4-14.1 | <26 | 110 | 1.0 | <0.1 | <2.0 | 10 | 0.03 to 0.11 |
| BZV55C15 | 15 | 5.0 | 13.8-15.6 | <30 | 110 | 1.0 | <0.1 | <2.0 | 11 | 0.03 to 0.11 |
| BZV55C16 | 16 | 5.0 | 15.3-17.1 | <40 | 170 | 1.0 | <0.1 | <2.0 | 12 | 0.03 to 0.11 |
| BZV55C18 | 18 | 5.0 | 16.8-19.1 | <50 | 170 | 1.0 | <0.1 | <2.0 | 13 | 0.03 to 0.11 |
| BZV55C20 | 20 | 5.0 | 18.8-21.2 | <55 | 220 | 1.0 | <0.1 | <2.0 | 15 | 0.03 to 0.11 |
| BZV55C22 | 22 | 5.0 | 20.8-23.3 | <55 | 220 | 1.0 | <0.1 | <2.0 | 16 | 0.04 to 0.12 |
| BZV55C24 | 24 | 5.0 | 22.8-25.6 | <80 | 220 | 1.0 | <0.1 | <2.0 | 18 | 0.04 to 0.12 |
| BZV55C27 | 27 | 5.0 | 25.1-28.9 | <80 | 220 | 1.0 | <0.1 | <2.0 | 20 | 0.04 to 0.12 |
| BZV55C30 | 30 | 5.0 | 28-32 | <80 | 220 | 1.0 | <0.1 | <2.0 | 22 | 0.04 to 0.12 |
| BZV55C33 | 33 | 5.0 | 31-35 | <80 | 220 | 1.0 | <0.1 | <2.0 | 24 | 0.04 to 0.12 |
| BZV55C36 | 36 | 5.0 | 34-38 | <80 | 220 | 1.0 | <0.1 | <2.0 | 27 | 0.04 to 0.12 |
| BZV55C39 | 39 | 2.5 | 37-41 | <90 | 500 | 0.5 | <0.1 | <5.0 | 30 | 0.04 to 0.12 |
| BZV55C43 | 43 | 2.5 | 40-46 | <90 | 600 | 0.5 | <0.1 | <5.0 | 33 | 0.04 to 0.12 |
| BZV55C47 | 47 | 2.5 | 44-50 | <110 | 700 | 0.5 | <0.1 | <5.0 | 36 | 0.04 to 0.12 |
| BZV55C51 | 51 | 2.5 | 48-54 | <125 | 700 | 0.5 | <0.1 | <10 | 39 | 0.04 to 0.12 |
| BZV55C56 | 56 | 2.5 | 52-60 | <135 | 1000 | 0.5 | <0.1 | <10 | 43 | 0.04 to 0.12 |
| BZV55C62 | 62 | 2.5 | 58-66 | <150 | 1000 | 0.5 | <0.1 | <10 | 47 | 0.04 to 0.12 |
| BZV55C68 | 68 | 2.5 | 64-72 | <200 | 1000 | 0.5 | <0.1 | <10 | 51 | 0.04 to 0.12 |
| BZV55C75 | 75 | 2.5 | 70-79 | <250 | 1500 | 0.5 | <0.1 | <10 | 56 | 0.04 to 0.12 |

(1) Tighter tolerances available on request: BZV55B...±2% of V_{Znom}

(2) at T_j=150°C



TM

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Ordering Information :

| Device | Packing |
|----------------|-------------------------|
| Part Number-TP | Tape&Reel: 2.5Kpcs/Reel |

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