

**BZT55C2V0  
THRU  
BZT55C75**

## Features

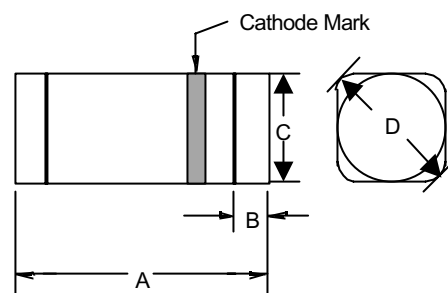
- Small surface mounting type
- High reliability

**500 mW  
Zener Diode  
2.0 to 75 Volts**

## Absolute Maximum Ratings

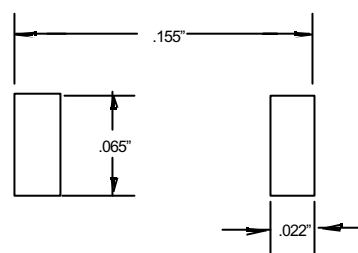
| Symbol    | Rating                    | Rating      | Unit |
|-----------|---------------------------|-------------|------|
| $P_D$     | Power dissipation         | 500         | mW   |
| $I_Z$     | Z-current                 | $P_Z/V_Z$   | mA   |
| $T_J$     | Junction Temperature      | -55 to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

## Quadro MELF



| DIM | INCHES |      | MM   |      | NOTE |
|-----|--------|------|------|------|------|
|     | MIN    | MAX  | MIN  | MAX  |      |
| A   | .130   | .146 | 3.30 | 3.70 |      |
| B   | .008   | .016 | .20  | .40  |      |
| C   | .055   | .063 | 1.40 | 1.60 | Ø    |
| D   | .067   |      | 1.70 |      |      |

## SUGGESTED SOLDER PAD LAYOUT



## Electrical Characteristics

| Symbol | Rating                                                 | Rating | Unit |
|--------|--------------------------------------------------------|--------|------|
| $V_F$  | Maximum Forward Voltage<br>( $I_F=200\text{mA}_{dc}$ ) | 1.5    | V    |

## BZT55C2V0 thru BZT55C75

### ELECTRICAL CHARACTERISTICS @25°C

| Type      | V <sub>Z</sub><br>VOLTS | I <sub>ZT</sub> for V <sub>ZT</sub> and r <sub>ZT</sub> |                  |      | r <sub>ZK</sub> at I <sub>ZK</sub> |          | REVERSE CURRENT<br>I <sub>R</sub> (Max) @ V <sub>R</sub> |                   |     | TK <sub>VZ</sub> |
|-----------|-------------------------|---------------------------------------------------------|------------------|------|------------------------------------|----------|----------------------------------------------------------|-------------------|-----|------------------|
|           | Nom                     | mA                                                      | V <sup>(1)</sup> | Ω    | Ω                                  | mA (Max) | uA                                                       | uA <sup>(2)</sup> | V   | %/K              |
| BZT55C2V0 | 2.0                     | 5.0                                                     | 1.9-2.1          | 100  | 600                                | 1.0      | <150                                                     | <300              | 1.0 | -0.09 to -0.06   |
| BZT55C2V2 | 2.2                     | 5.0                                                     | 2.09-2.31        | 100  | 600                                | 1.0      | <150                                                     | <300              | 1.0 | -0.09 to -0.06   |
| BZT55C2V4 | 2.4                     | 5.0                                                     | 2.28-2.56        | <85  | 600                                | 1.0      | <50                                                      | <100              | 1.0 | -0.09 to -0.06   |
| BZT55C2V7 | 2.7                     | 5.0                                                     | 2.5-2.9          | <85  | 600                                | 1.0      | <10                                                      | <50               | 1.0 | -0.09 to -0.06   |
| BZT55C3V0 | 3.0                     | 5.0                                                     | 2.8-3.2          | <85  | 600                                | 1.0      | <4.0                                                     | <40               | 1.0 | -0.08 to -0.05   |
| BZT55C3V3 | 3.3                     | 5.0                                                     | 3.1-3.5          | <85  | 600                                | 1.0      | <2.0                                                     | <40               | 1.0 | -0.08 to -0.05   |
| BZT55C3V6 | 3.6                     | 5.0                                                     | 3.4-3.8          | <85  | 600                                | 1.0      | <2.0                                                     | <40               | 1.0 | -0.08 to -0.05   |
| BZT55C3V9 | 3.9                     | 5.0                                                     | 3.7-4.1          | <85  | 600                                | 1.0      | <2.0                                                     | <40               | 1.0 | -0.08 to -0.05   |
| BZT55C4V3 | 4.3                     | 5.0                                                     | 4.0-4.6          | <75  | 600                                | 1.0      | <1.0                                                     | <20               | 1.0 | -0.06 to -0.03   |
| BZT55C4V7 | 4.7                     | 5.0                                                     | 4.4-5.0          | <60  | 600                                | 1.0      | <0.5                                                     | <10               | 1.0 | -0.05 to +0.02   |
| BZT55C5V1 | 5.1                     | 5.0                                                     | 4.8-5.4          | <35  | 550                                | 1.0      | <0.1                                                     | <2.0              | 1.0 | -0.02 to +0.02   |
| BZT55C5V6 | 5.6                     | 5.0                                                     | 5.2-6.0          | <25  | 450                                | 1.0      | <0.1                                                     | <2.0              | 1.0 | -0.05 to +0.05   |
| BZT55C6V2 | 6.2                     | 5.0                                                     | 5.8-6.6          | <10  | 200                                | 1.0      | <0.1                                                     | <2.0              | 2.0 | 0.03 to 0.06     |
| BZT55C6V8 | 6.8                     | 5.0                                                     | 6.4-7.2          | <8   | 150                                | 1.0      | <0.1                                                     | <2.0              | 3.0 | 0.03 to 0.07     |
| BZT55C7V5 | 7.5                     | 5.0                                                     | 7.0-7.9          | <7   | 50                                 | 1.0      | <0.1                                                     | <2.0              | 5.0 | 0.03 to 0.07     |
| BZT55C8V2 | 8.2                     | 5.0                                                     | 7.7-8.7          | <7   | 50                                 | 1.0      | <0.1                                                     | <2.0              | 6.2 | 0.03 to 0.08     |
| BZT55C9V1 | 9.1                     | 5.0                                                     | 8.5-9.6          | <10  | 50                                 | 1.0      | <0.1                                                     | <2.0              | 6.8 | 0.03 to 0.09     |
| BZT55C10  | 10                      | 5.0                                                     | 9.4-10.6         | <15  | 70                                 | 1.0      | <0.1                                                     | <2.0              | 7.5 | 0.03 to 0.1      |
| BZT55C11  | 11                      | 5.0                                                     | 10.4-11.6        | <20  | 70                                 | 1.0      | <0.1                                                     | <2.0              | 8.2 | 0.03 to 0.11     |
| BZT55C12  | 12                      | 5.0                                                     | 11.4-12.7        | <20  | 90                                 | 1.0      | <0.1                                                     | <2.0              | 9.1 | 0.03 to 0.11     |
| BZT55C13  | 13                      | 5.0                                                     | 12.4-14.1        | <26  | 110                                | 1.0      | <0.1                                                     | <2.0              | 10  | 0.03 to 0.11     |
| BZT55C15  | 15                      | 5.0                                                     | 13.8-15.6        | <30  | 110                                | 1.0      | <0.1                                                     | <2.0              | 11  | 0.03 to 0.11     |
| BZT55C16  | 16                      | 5.0                                                     | 15.3-17.1        | <40  | 170                                | 1.0      | <0.1                                                     | <2.0              | 12  | 0.03 to 0.11     |
| BZT55C18  | 18                      | 5.0                                                     | 16.8-19.1        | <50  | 170                                | 1.0      | <0.1                                                     | <2.0              | 13  | 0.03 to 0.11     |
| BZT55C20  | 20                      | 5.0                                                     | 18.8-21.2        | <55  | 220                                | 1.0      | <0.1                                                     | <2.0              | 15  | 0.03 to 0.11     |
| BZT55C22  | 22                      | 5.0                                                     | 20.8-23.3        | <55  | 220                                | 1.0      | <0.1                                                     | <2.0              | 16  | 0.04 to 0.12     |
| BZT55C24  | 24                      | 5.0                                                     | 22.8-25.6        | <80  | 220                                | 1.0      | <0.1                                                     | <2.0              | 18  | 0.04 to 0.12     |
| BZT55C27  | 27                      | 5.0                                                     | 25.1-28.9        | <80  | 220                                | 1.0      | <0.1                                                     | <2.0              | 20  | 0.04 to 0.12     |
| BZT55C30  | 30                      | 5.0                                                     | 28-32            | <80  | 220                                | 1.0      | <0.1                                                     | <2.0              | 22  | 0.04 to 0.12     |
| BZT55C33  | 33                      | 5.0                                                     | 31-35            | <80  | 220                                | 1.0      | <0.1                                                     | <2.0              | 24  | 0.04 to 0.12     |
| BZT55C36  | 36                      | 5.0                                                     | 34-38            | <80  | 220                                | 1.0      | <0.1                                                     | <2.0              | 27  | 0.04 to 0.12     |
| BZT55C39  | 39                      | 2.5                                                     | 37-41            | <90  | 500                                | 0.5      | <0.1                                                     | <5.0              | 30  | 0.04 to 0.12     |
| BZT55C43  | 43                      | 2.5                                                     | 40-46            | <90  | 600                                | 0.5      | <0.1                                                     | <5.0              | 33  | 0.04 to 0.12     |
| BZT55C47  | 47                      | 2.5                                                     | 44-50            | <110 | 700                                | 0.5      | <0.1                                                     | <5.0              | 36  | 0.04 to 0.12     |
| BZT55C51  | 51                      | 2.5                                                     | 48-54            | <125 | 700                                | 0.5      | <0.1                                                     | <10               | 39  | 0.04 to 0.12     |
| BZT55C56  | 56                      | 2.5                                                     | 52-60            | <135 | 1000                               | 0.5      | <0.1                                                     | <10               | 43  | 0.04 to 0.12     |
| BZT55C62  | 62                      | 2.5                                                     | 58-66            | <150 | 1000                               | 0.5      | <0.1                                                     | <10               | 47  | 0.04 to 0.12     |
| BZT55C68  | 68                      | 2.5                                                     | 64-72            | <200 | 1000                               | 0.5      | <0.1                                                     | <10               | 51  | 0.04 to 0.12     |
| BZT55C75  | 75                      | 2.5                                                     | 70-79            | <250 | 1500                               | 0.5      | <0.1                                                     | <10               | 56  | 0.04 to 0.12     |

(1) Tighter tolerances available on request: BZT55B...±2% of V<sub>Znom</sub>

(2) at T<sub>j</sub>=150°C

## Ordering Information

|                  |                        |
|------------------|------------------------|
| Device           | Packing                |
| (Part Number)-TP | Tape&Reel;2.5Kpcs/Reel |

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