

## Type CJT Series

### Key Features

- Modular versions available
- Environmental protection to IP54
- Up to 2000W power rating
- Aluminium enclosure
- Vibration resistant

### Applications

- Power supplies
- Inverters
- Servo systems
- Electrical systems in difficult environments



TE Connectivity (TE) is a leading supplier of standard and custom-designed power resistors for industrial, control and general-purpose applications. The CJT Series of resistors are advantageous to conventional ceramic resistors in the terms of weather proofing, oscillation-resistance and safety. They are widely applied to a range of electrical circuits including power supplies, inverters and servo systems. With easy airtight fitting and the ability to fit a heatsink the resistor is highly suited to challenging environmental conditions.

### Characteristics - Electrical

| Type                                            | CJT60                  | CJT80 | CJT100 | CJT120 | CJT150 | CJT200 | CJT300 |
|-------------------------------------------------|------------------------|-------|--------|--------|--------|--------|--------|
| Rated Power in Free Air (W)                     | 60                     | 80    | 100    | 120    | 150    | 200    | 300    |
| Ohmic Value - Min                               | 1R0                    |       |        |        |        |        |        |
| Ohmic Value Max                                 | 2K7                    |       |        |        |        |        |        |
| Tolerance                                       | 5%                     |       |        |        |        |        |        |
| Temp. Coefficient of Resistance                 | 440ppm                 |       |        |        |        |        |        |
| Resistor Element Max Working Voltage            | 1kV                    |       |        |        |        |        |        |
| Dielectric Voltage                              | AC2.5kV/1min 50Hz      |       |        |        |        |        |        |
| Insulation Resistance (Megohm)                  | R $\geq$ 100M $\Omega$ |       |        |        |        |        |        |
| Max. Surface Temp. at Rated Power Free Air (°C) | 206°C                  | 221°C | 254°C  | 267°C  | 286°C  | 306°C  | 334°C  |
| Weight                                          | 150g                   | 185g  | 240g   | 280g   | 300g   | 445g   | 600g   |
| Termination                                     | Lead                   |       |        |        |        |        |        |
| Lead Length                                     | 500mm                  |       |        |        |        |        |        |
| Lead Diameter                                   | 1.5mm                  |       |        |        |        |        |        |
| Terminal Creep Distance                         | n/a                    |       |        |        |        |        |        |

| Type                                            | CJT400            | CJT500 | CJT800        | CJT1000 | CJT1200 | CJT1500 | CJT2000 |
|-------------------------------------------------|-------------------|--------|---------------|---------|---------|---------|---------|
| Rated Power in Free Air (W)                     | 400               | 500    | 800           | 1000    | 1200    | 1500    | 2000    |
| Ohmic Value - Min                               | 1R0               |        |               |         |         |         |         |
| Ohmic Value Max                                 | 2K7               |        |               |         |         |         |         |
| Tolerance                                       | 5%                |        |               |         |         |         |         |
| Temp. Coefficient of Resistance                 | 440ppm            |        |               |         |         |         |         |
| Resistor Element Max Working Voltage            | 1kV               |        |               |         |         |         |         |
| Dielectric Voltage                              | AC2.5kV/1min 50Hz |        |               |         |         |         |         |
| Insulation Resistance (Megohm)                  | R≥100MΩ           |        |               |         |         |         |         |
| Max. Surface Temp. at Rated Power Free Air (°C) | 370°C             | 358°C  | 311°C         | 372°C   | 406°C   | 419°C   | 453°C   |
| Weight                                          | 765g              | 965g   | 1.18kg        | 3.46kg  | 3.885kg | 4.31kg  | 4.89kg  |
| Termination                                     | Lead              |        | Lead/Terminal |         |         |         |         |
| Lead Length                                     | 500mm             |        |               |         |         |         |         |
| Lead Diameter                                   | 1.5mm             |        | 4mm           |         |         |         |         |
| Terminal Creep Distance                         | n/a               |        | 30mm          | 42mm    | 42mm    | 42mm    | 42mm    |

## Type CJT Series

### Derating Curve



### Temperature Rise



### Dimensions - CJT Series



| Rated Power (W) | Dimensions (mm) |     |    |     |
|-----------------|-----------------|-----|----|-----|
|                 | A               | B   | C  | D   |
| 60              | 115             | 98  | 40 | 20  |
| 80              | 140             | 123 | 40 | 20  |
| 100             | 165             | 148 | 40 | 20  |
| 120             | 190             | 173 | 40 | 20  |
| 150             | 215             | 197 | 40 | 20  |
| 200             | 165             | 147 | 60 | 30  |
| 300             | 215             | 197 | 60 | 30  |
| 400             | 265             | 247 | 60 | 30  |
| 500             | 335             | 317 | 60 | 30  |
| 800             | 400             | 382 | 61 | 59  |
| 1000            | 400             | 384 | 50 | 107 |
| 1200            | 450             | 434 | 50 | 107 |
| 1500            | 485             | 470 | 50 | 107 |
| 2000            | 550             | 532 | 50 | 107 |

## Type CJT Series

### Dimensions - CJTM Series



| Type   | Rated Power (W) | Resistance (Ω) |      | Dimensions (mm) |     |     |     |    |    | Connecting Wire (mm <sup>2</sup> ) | Lead Length (mm) |
|--------|-----------------|----------------|------|-----------------|-----|-----|-----|----|----|------------------------------------|------------------|
|        |                 | Min            | Max  | A               | A1  | B   | B1  | G  | H  |                                    |                  |
| CJTM1U | 200             | 1              | 2K7  | 268             | 253 | 64  | 30  | 20 | 54 | 2.5                                | 500              |
| CJTM1U | 300             | 1              | 2K7  | 318             | 303 | 64  | 30  | 20 | 54 | 2.5                                | 500              |
| CJTM1U | 400             | 1              | 2K7  | 368             | 353 | 64  | 30  | 20 | 54 | 2.5                                | 500              |
| CJTM1U | 500             | 1              | 2K7  | 438             | 423 | 64  | 30  | 20 | 54 | 2.5                                | 500              |
| CJTM1U | 600             | 1              | 2K7  | 503             | 488 | 64  | 30  | 20 | 54 | 2.5                                | 500              |
| CJTM2U | 800             | 2              | 5K4  | 372             | 355 | 84  | 49  | 20 | 84 | 2.5                                | 500              |
| CJTM2U | 1000            | 2              | 5K4  | 442             | 425 | 84  | 49  | 20 | 84 | 2.5                                | 500              |
| CJTM2U | 1200            | 2              | 5K4  | 507             | 490 | 84  | 49  | 20 | 84 | 2.5                                | 500              |
| CJTM3U | 1200            | 3              | 8K1  | 372             | 355 | 134 | 75  | 20 | 84 | 2.5                                | 500              |
| CJTM3U | 1500            | 3              | 8K1  | 442             | 425 | 134 | 75  | 20 | 84 | 2.5                                | 500              |
| CJTM3U | 1800            | 3              | 8K1  | 507             | 490 | 134 | 75  | 20 | 84 | 2.5                                | 500              |
| CJTM4U | 1600            | 4              | 10K8 | 372             | 355 | 184 | 125 | 20 | 84 | 2.5                                | 500              |
| CJTM4U | 2000            | 4              | 10K8 | 442             | 425 | 184 | 125 | 20 | 84 | 4                                  | 500              |
| CJTM4U | 2400            | 4              | 10K8 | 507             | 490 | 184 | 125 | 20 | 84 | 4                                  | 500              |
| CJTM5U | 2000            | 5              | 13K5 | 372             | 355 | 234 | 175 | 20 | 84 | 4                                  | 500              |
| CJTM5U | 2500            | 5              | 13K5 | 442             | 425 | 234 | 175 | 20 | 84 | 4                                  | 500              |
| CJTM5U | 3000            | 5              | 13K5 | 507             | 490 | 234 | 175 | 20 | 84 | 4                                  | 500              |

### How to Order

|                                               |                                                                             |                                                                                                                                                 |                                                                                                                                                 |                          |
|-----------------------------------------------|-----------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| CJT                                           | 60                                                                          | 1K0                                                                                                                                             | J                                                                                                                                               | J                        |
|                                               |                                                                             |                                                                                                                                                 |                                                                                                                                                 |                          |
| <b>Common Part</b>                            | <b>Power Rating</b>                                                         | <b>Resistance Value</b>                                                                                                                         | <b>Tolerance</b>                                                                                                                                | <b>Connection</b>        |
| CJT - Single Aluminium Housed Power Resistors | 60 - 60 Watt<br>80 - 80 Watt<br>100 - 100 Watt<br>120 - 120 Watt<br>etc.    | 1 Ohm<br>(1000 Milliohms)<br>1R0<br><br>10 Ohms<br>(10 Ohms)<br>10R<br><br>100R Ohms<br>(100 Ohms)<br>100R<br><br>1k Ohms<br>(1000 Ohms)<br>1K0 | J - ±5%                                                                                                                                         | M - Terminal<br>J - Lead |
| CJTM                                          | 1U                                                                          | 200                                                                                                                                             | 1R0                                                                                                                                             | J                        |
|                                               |                                                                             |                                                                                                                                                 |                                                                                                                                                 |                          |
| <b>Common Part</b>                            | <b>No. of Units</b>                                                         | <b>Power Rating</b>                                                                                                                             | <b>Resistance Value</b>                                                                                                                         | <b>Tolerance</b>         |
| CJTM - Multi Aluminium Housed Power Resistors | 1U - 1 Unit<br>2U - 2 Units<br>3U - 3 Units<br>4U - 4 Units<br>5U - 5 Units | 200 to 3000 Watts                                                                                                                               | 1 Ohm<br>(1000 Milliohms)<br>1R0<br><br>10 Ohms<br>(10 Ohms)<br>10R<br><br>100R Ohms<br>(100 Ohms)<br>100R<br><br>1k Ohms<br>(1000 Ohms)<br>1K0 | J - ±5%<br>K - ±10%      |

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