## MJTC Series - Thin-Film Planar Multijunction Thermal Converters

Custom solutions are available.

### HOW TO ORDER

**MJTC- 101 G X M**

**Packaging**

**TCR (ppm/°C)**
X = ±25ppm

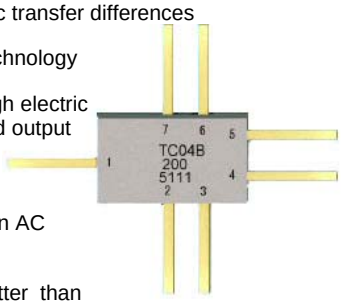
**Resistance Tolerance**
G = ±2%

**Resistance**
100Ω = 101
500Ω = 501
1,000Ω = 102

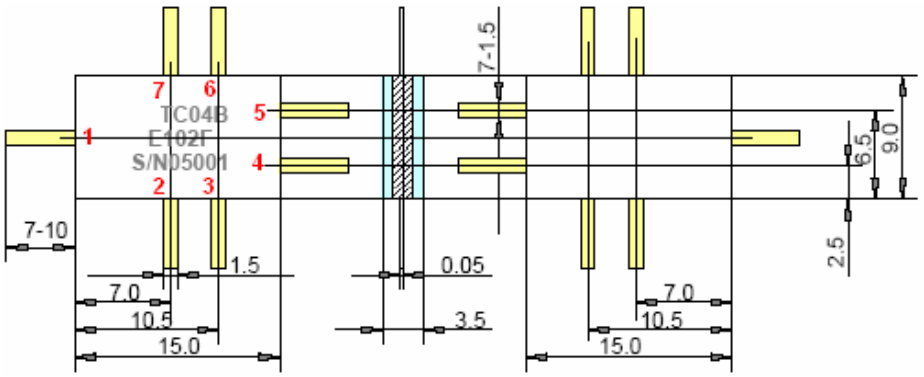
**Series**
Thin Film Planar Multijunction Thermal Converter

### FEATURES

- Improved high-frequency ac-dc transfer differences
- Special thin-film thermopile technology
- Good thermal coupling and high electric isolation between the input and output circuits.
- Sensitivity of 10-6 to 10-7 for comparing rms power between AC and DC input voltages.
- Frequency characteristic of better than 0.001% in the frequency range of 10 Hz to 100 kHz, and better than 0.01% at 100kHz to 1 MHz.




### DIMENSIONS & CONFIGURATION

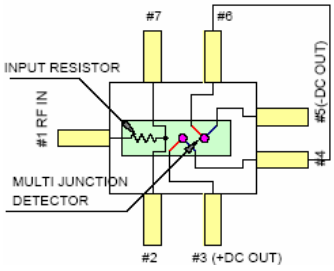



| Pin Legend | |
|---|---|
| **1** | Input Hi |
| **2** | Input Lo, Internal Connect to 7 |
| **3** | DC Output + (1) |
| **4** | DC Output - (1) |
| **5** | DC Output - (2) |
| **6** | DC Output + (2) |
| **7** | Input Lo, Internal Connect to 2 |

### SPECIFICATIONS & PERFORMANCE

| | | |
|---|---|---|
| Input | Rated Power | 0.1W |
| | Max Applied Power | 0.5W |
| | Resistance (Ω) | 50, 100, 200, 500, 1K, or 2K |
| | TCR (ppm/°C) | ±25 |
| | Frequency Range | DC-1MHz |
| Output | Rating output voltage | More than 60mV |
| | Output Resistance | 340 Ohms ±30% |
| | TC of Output Resistance | ±300ppm/K |
| Input/Output | Sensitivity | More than 0.6 V/W |
| | TC of Sensitivity | -0.001mV/mW/K (typical) |
| | Response Time | 2.5 ± 0.6 sec (63% response) |
| | AC-DC Difference, 10k-100kHz | < 10ppm (typical) |
| | AC-DC Difference, 100K-1MHz | < 10ppm (typical) |
| Env. | Operating Temperature | 25°C ± 5°C |
| | Storage Temperature | -20°C ~ +60°C |

### EQUIVALENT CIRCUIT & PIN ASSIGNMENT




Top View

### RECOMMENDED FOOT PATTERN

Note: Direct connection to center conductor of RF connecter from pin 1 is recommended.

