

## Scope:

This specification is applied to multicomp thermoelectric modules  
Revision of these specifications is carried out after consent.

## Specifications:

| Parameters           |   | Remarks   |        |
|----------------------|---|-----------|--------|
| Internal resistance  | 1.4Ω ±10%   | Note-1    |        |
| I max.               | 13A   | Note-2    |        |
| V max.               | 24.1V   | Note-3    |        |
| -                    | Th = 27°C   | Th = 50°C | -      |
| Q max.               | 200W  | 224W      | Note-4 |
| ΔT max.              | 68°C  | 75°C      | Note-5 |
| Solder melting point | 138°C   |           | Note-6 |
| Maximum compress     | 98.07N / cm <sup>2</sup> (10kgf / cm <sup>2</sup> ) |           | Note-7 |

Note-1 : Measured by AC 4 - terminal method at 25°C

Note-2 : Maximum current at ΔT max.

Note-3 : Maximum voltage at ΔT max.

Note-4 : Maximum cooling capacity at I max. V max. and ΔT = 0°C

Note-5 : Maximum temperature difference at I max. V max. and Q = 0W  
(Maximum parameters are measured in a vacuum 1.3 P)

Note-6 : The solder melting point of thermoelectric module

Note-7 : Recommended maximum compression (not destruction limit)

## Recommendations:

- Operating range : -40°C to +90°C
- Dropping or exerting mechanical shock will cause breakage, take care in handling
- Thinly spread thermally conductive grease should be placed between module and heat exchanger  
Surface deviation from flatness should be kept under 0.02mm
- For optimum reliability and performance it is recommended that the module be utilised <0.7I max.  
Silicone sealed for moisture protection

# Thermoelectric Module



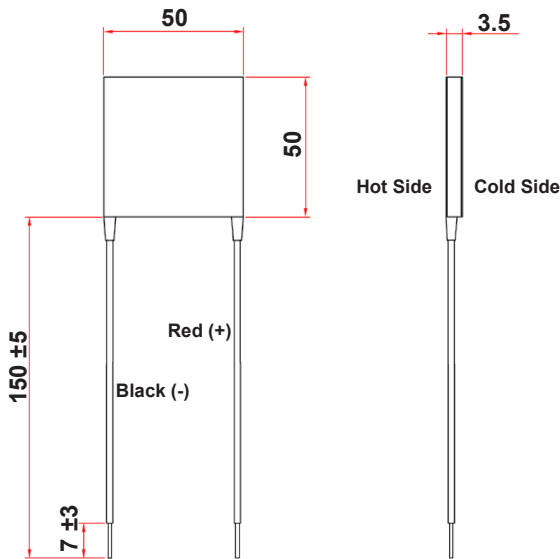
## Specification Table

Thot = 27°C

| I max. (A) | U max. (V) | Qc max. W | dT max. °C | A  | B  | H   | Part Number    |
|------------|------------|-----------|------------|----|----|-----|----------------|
| 13         | 24.1       | 200       | 68         | 50 | 50 | 3.5 | MCTE1-19913L-S |

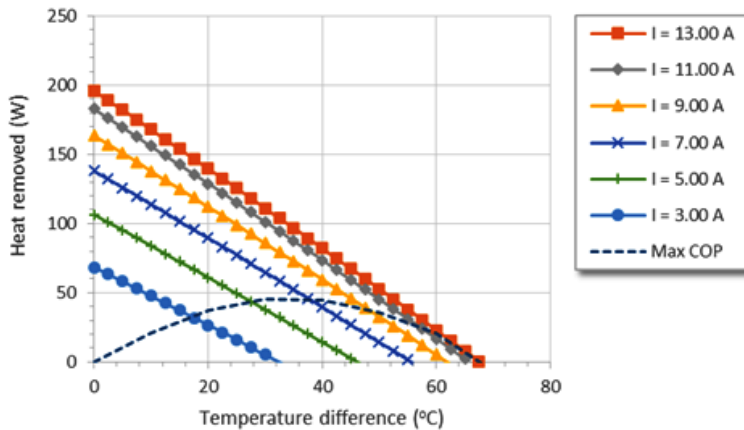
Dimensions : Millimetres

## Outline Drawing:



Dimensions : Millimetres

## Cooling data for hot side temperature of 27°C



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