

# SPECIFICATION

Product : Thermoelectric module

Part Number : PE-031-10-13

## 1 . Scope

- 1—1 This specification is applied to Multicomp thermoelectric modules
- 1—2 Revision of these specifications is carried out after consent.

## 2 . Specification

### 2 - 1 Parameters

Parameters		Remarks
Internal resistance	0.95 $\Omega$ $\pm$ 10%	Note-1
I <sub>max.</sub>	3.9 A	Note-2
V <sub>max.</sub>	3.8 V	Note-3
	Th=25°C	
Q <sub>max.</sub>	8.5 W	Note-4
$\Delta$ T <sub>max.</sub>	72°C	Note-5
solder melting point	138 °C	Note-6
Maximum. compress.	1MPa	Note-7

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

Note-2 Maximum current at  $\Delta$ T<sub>max.</sub>

Note-3 Maximum voltage at  $\Delta$ T<sub>max.</sub>

Note-4 Maximum cooling capacity at I<sub>max.</sub>,V<sub>max.</sub> and  $\Delta$ T = 0°C.

Note-5 Maximum temperature difference at I<sub>max.</sub>,V<sub>max.</sub> and Q = 0W.

( Maximum parameters are measured in a vacuum 1.3P )

Note-6 The solder melting point of thermoelectric module

Note-7 Recommended maximum compression (not destruction limit)

## 2 -2 Recommendations:

- maximum temperature for short time: 110 °C
- operation temperature up to 90°C for long lifetime;
- good reliability in ON-OFF mode
- recommended operation current not higher than 0.7 of  $I_{max}$

## 2 - 3 Performance Graph

