# SPECIFICATION

## Product : Thermoelectric module

Part Number : TE1-12712L

#### 1. Scope

1—1 This specification is applied to Multicomp thermoelectric modules

1—2 Revision of these specifications is carried out after consent.

#### ${\bf 2}$ . Specification

2 - 1 Parameters

Parameters			Remarks
Internal resistance	$1.0 \ \Omega \pm 10\%$		Note-1
Imax.	12 A		Note-2
Vmax.	15.4 V		Note-3
	Th=27°C	Th=50°C	
Qmax.	110 W	$123~\mathrm{W}$	Note-4
⊿Tmax.	68°C	75°C	Note-5
solder melting point	138°C		Note-6
Maximum. compress.	98.07N/cm <sup>2</sup> (10 kgf/cm <sup>2</sup> )		Note-7

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

Note-2 Maximum current at  $\square$ Tmax.

Note-3 Maximum voltage at  $\square$ Tmax.

Note-4 Maximum cooling capacity at Imax.,Vmax. and  $\Delta T = 0$ °C.

Note-5 Maximum temperature difference at Imax.,Vmax. and Q = 0W.

( Maximum parameters are measured in a vacuum  $1.3\mathrm{P}$  )

Note-6 The solder melting point of thermoelectric module

Note-7 Recommended maximum compression (not destruction limit)



2 - 2 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  $0.02 \mathrm{mm}$ 

- For optimum reliability and performance it is recommended that the module be utilised <0.7 I max

### **Outline Drawing**

