

# Thermoelectric Module



## Scope

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

## Specifications

Parameters			Remarks
Internal resistance	0.8 $\Omega$ $\pm$ 10%		Note-1
I max.	15 A		Note-2
V max.	15.4 V		Note-3
-	Th = 27°C	Th = 50°C	-
Q max.	130 W	145 W	Note-4
$\Delta$ T max.	68°C	75°C	Note-5
Solder melting point	138°C		Note-6
Maximum compress	98.07 N / 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  $\Delta$ T max.

Note-3 : Maximum voltage at  $\Delta$ T max.

Note-4 : Maximum cooling capacity at I max. V max. and  $\Delta$ T = 0°C

Note-5 : Maximum temperature difference at I max. V max. and Q = 0 W

(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 0.02 mm

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

Silicone sealed for moisture protection

## Specification Table

Thot = 27°C

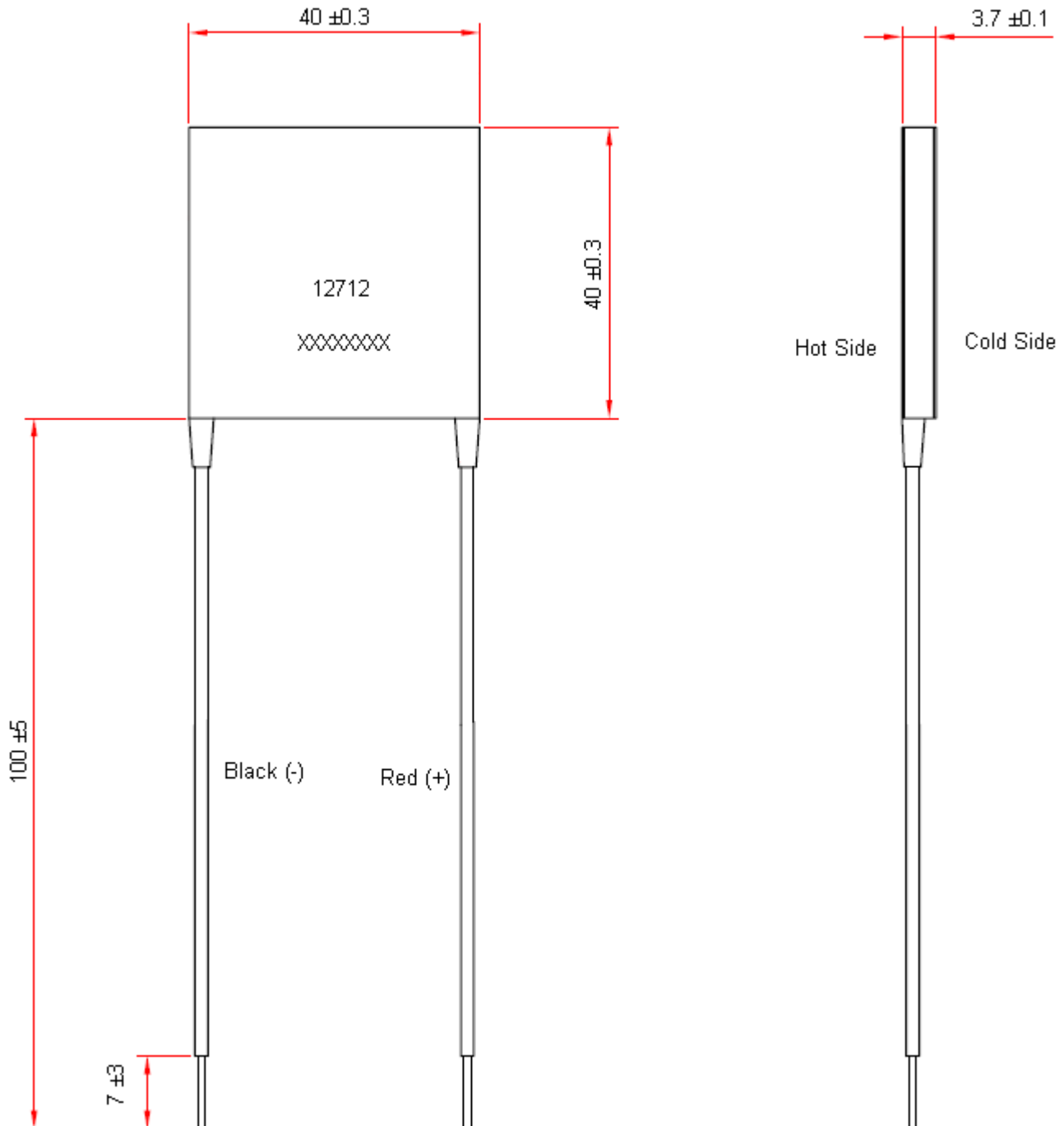
I max. (A)	U max. (V)	Qc max. W	dT max. °C	A	B	H	Part Number
15	15.4	130	68	50	50	3.5	MCTE1-12715L-S

Dimensions : Millimetres

# Thermoelectric Module



## Outline Drawing



Dimensions : Millimetres

**Important Notice :** This data sheet and its contents (the "Information") belong to the members of the Premier Farnell group of companies (the "Group") or are licensed to it. No licence is granted for the use of it other than for information purposes in connection with the products to which it relates. No licence of any intellectual property rights is granted. The Information is subject to change without notice and replaces all data sheets previously supplied. The Information supplied is believed to be accurate but the Group assumes no responsibility for its accuracy or completeness, any error in or omission from it or for any use made of it. Users of this data sheet should check for themselves the Information and the suitability of the products for their purpose and not make any assumptions based on information included or omitted. Liability for loss or damage resulting from any reliance on the Information or use of it (including liability resulting from negligence or where the Group was aware of the possibility of such loss or damage arising) is excluded. This will not operate to limit or restrict the Group's liability for death or personal injury resulting from its negligence. Multicomp is the registered trademark of the Group. © Premier Farnell plc 2011.