

# 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	3.1 $\Omega \pm 10\%$	Note-1
I max.	9 A	Note-2
V max.	35.9 V	Note-3
-	Th = 25°C	-
Q max.	196 W	Note-4
$\Delta T$ max.	68°C	Note-5
Solder melting point	138°C	Note-6
Maximum compress	1 MPa	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  $\Delta T = 0^\circ\text{C}$

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:

High cooling capacity from a small surface and long lifetime in power cycling applications with change of current polarity

Operation temperature up to 90°C for long lifetime; up to 110°C for short periods

With operation current close to 0.5 I max. extremely high COP (coefficient of performance possible)

Preferable application; high cooling capacity at high temperatures / cycling

Epoxy sealed for moisture protection

## Specification Table

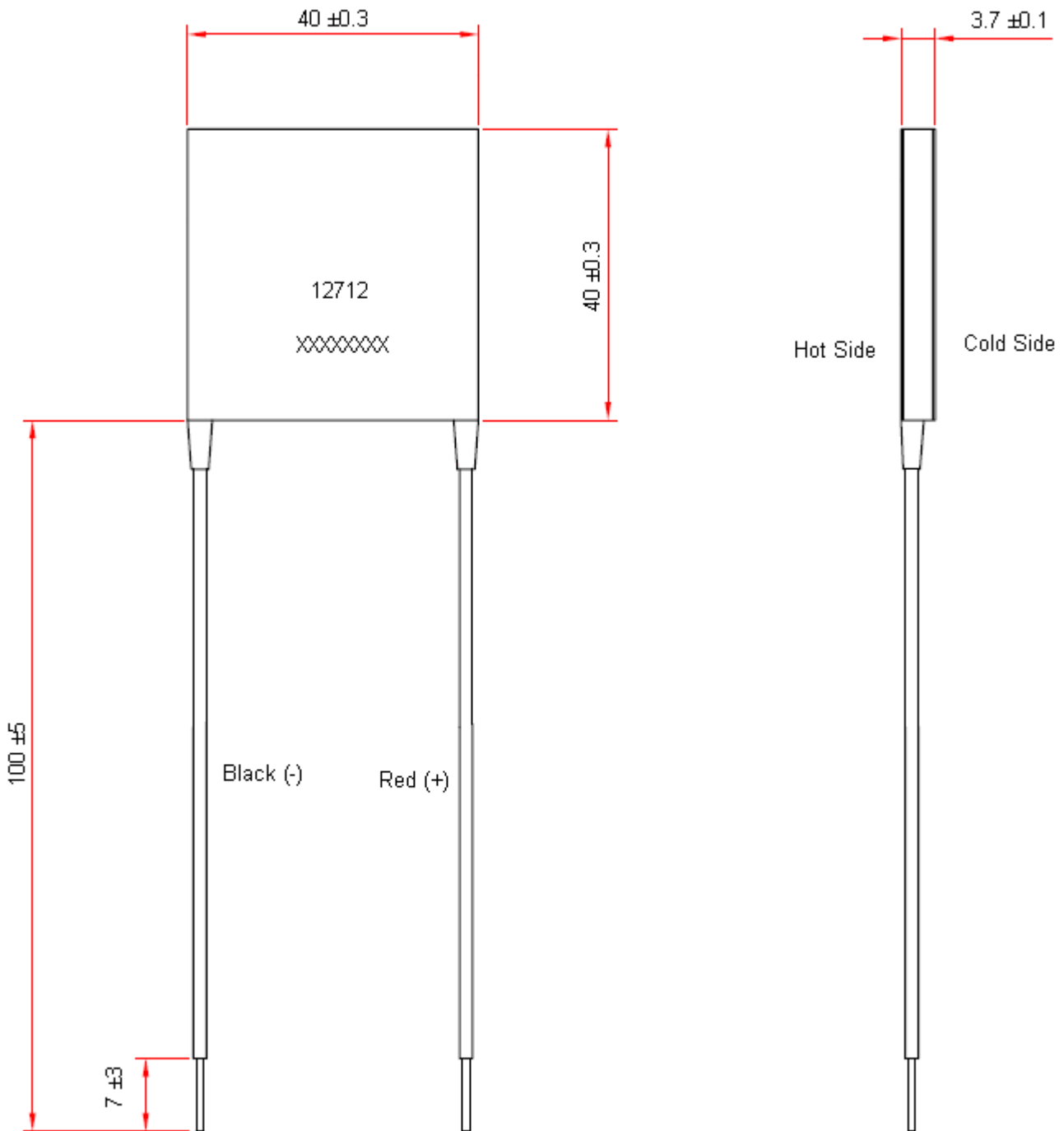
Thot = 27°C

I max. (A)	U max. (V)	Qc max. W	dT max. °C	A	B	H	Part Number
9	35.9	196	68	40	40	3.1	MCHPE-288-10-05-E

Dimensions : Millimetres

# Thermoelectric Module

## Outline Drawing

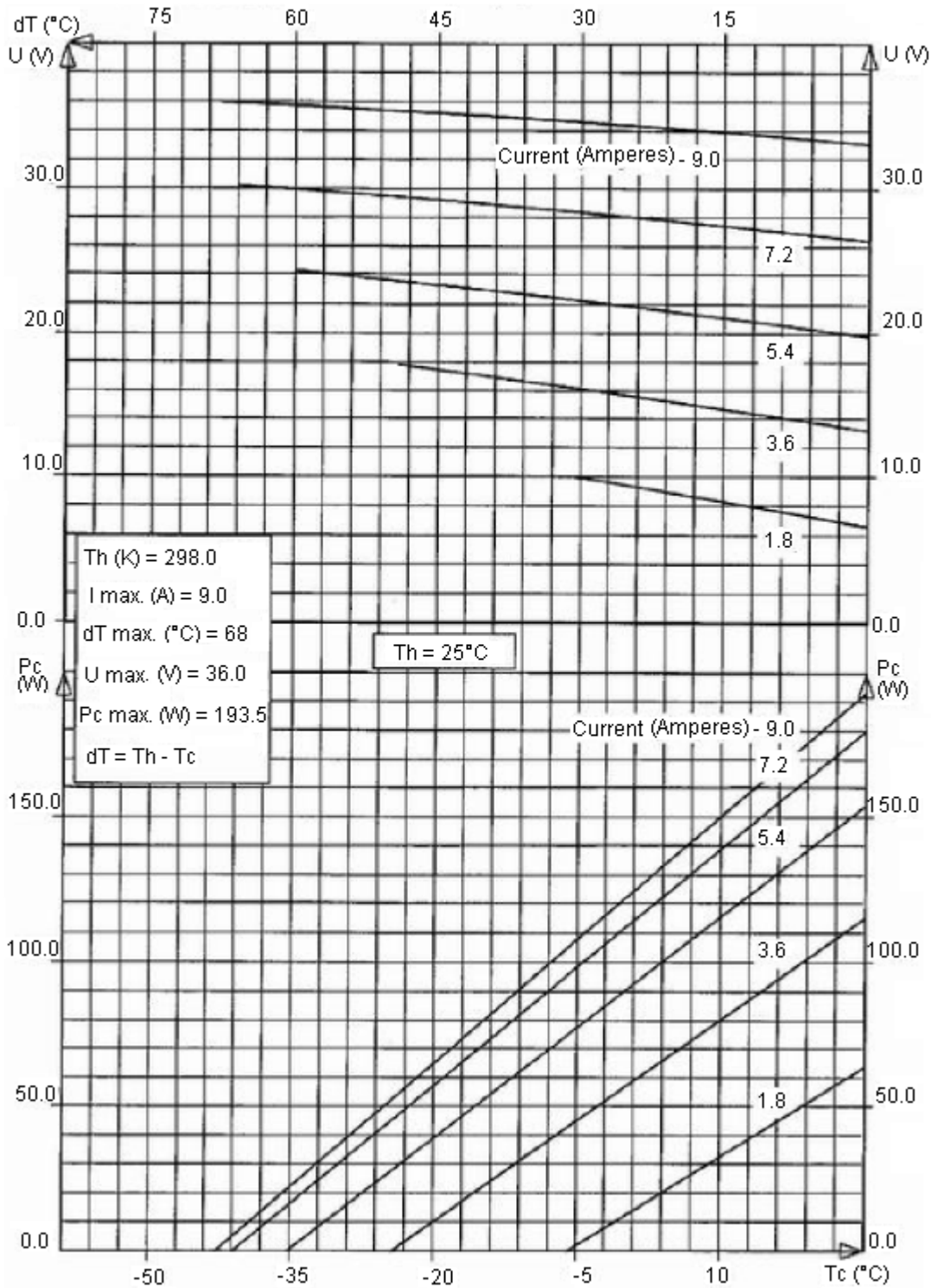


Dimensions : Millimetres

# Thermoelectric Module



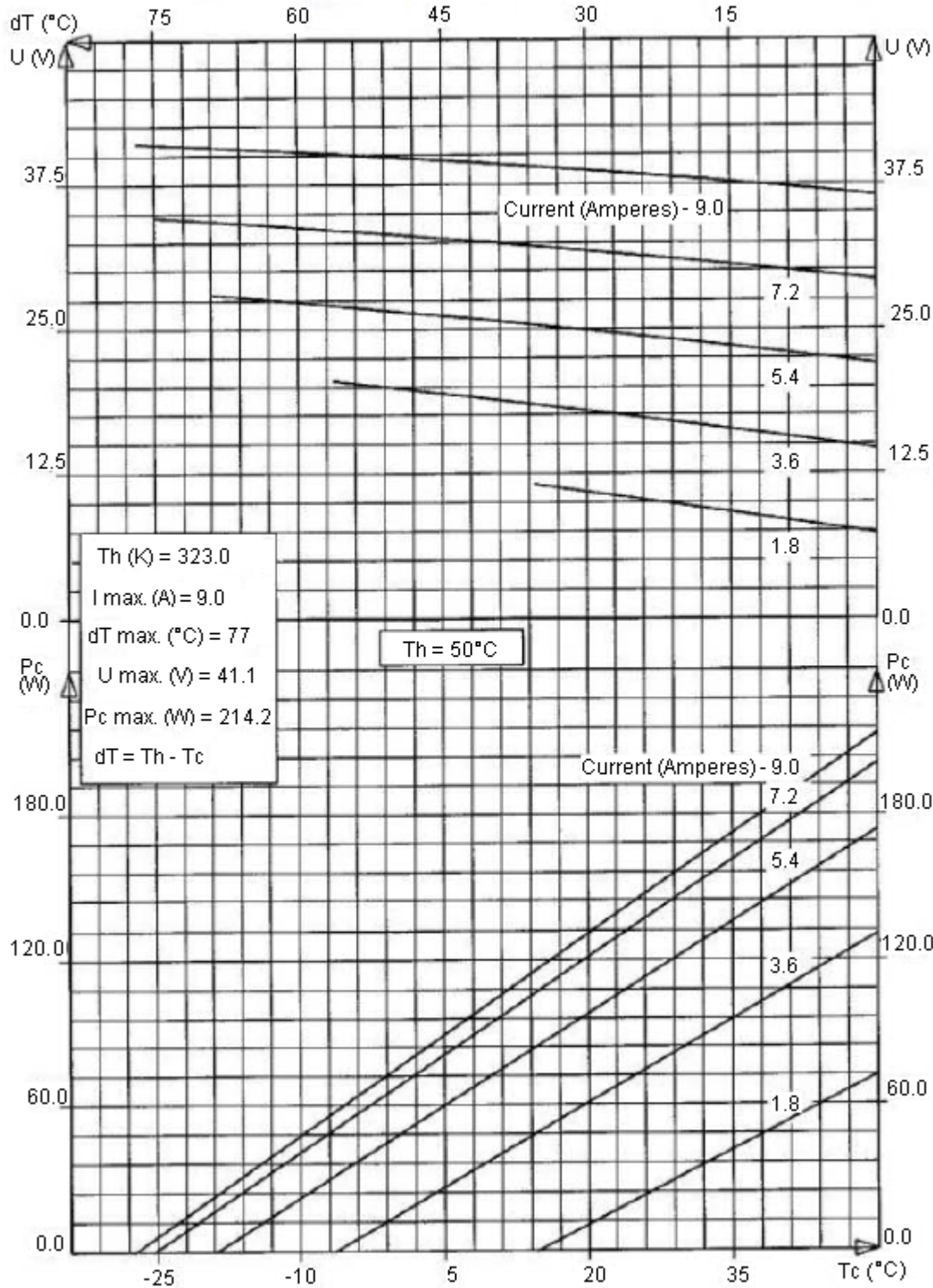
Performance Graph (298K)



# Thermoelectric Module



## Performance Graph (323K)



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