

Thermoelectric Module



Scope

This specification is applied to thermoelectric modules supplied by GCS
Revision of these specifications is carried out after consent

Specifications

Parameters		Remarks	
Internal resistance	-	Note-1	
I max.	15.4 A	Note-2	
V max.	24.8 V	Note-3	
-	Th = 25°C	Th = 50°C	-
Q max.	232 W	249.4 W	Note-4
ΔT max.	68°C	78	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 ΔT max.

Note-3 : Maximum voltage at ΔT 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;

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

Epoxy sealed for moisture protection

Specification Table

Thot = 27°C

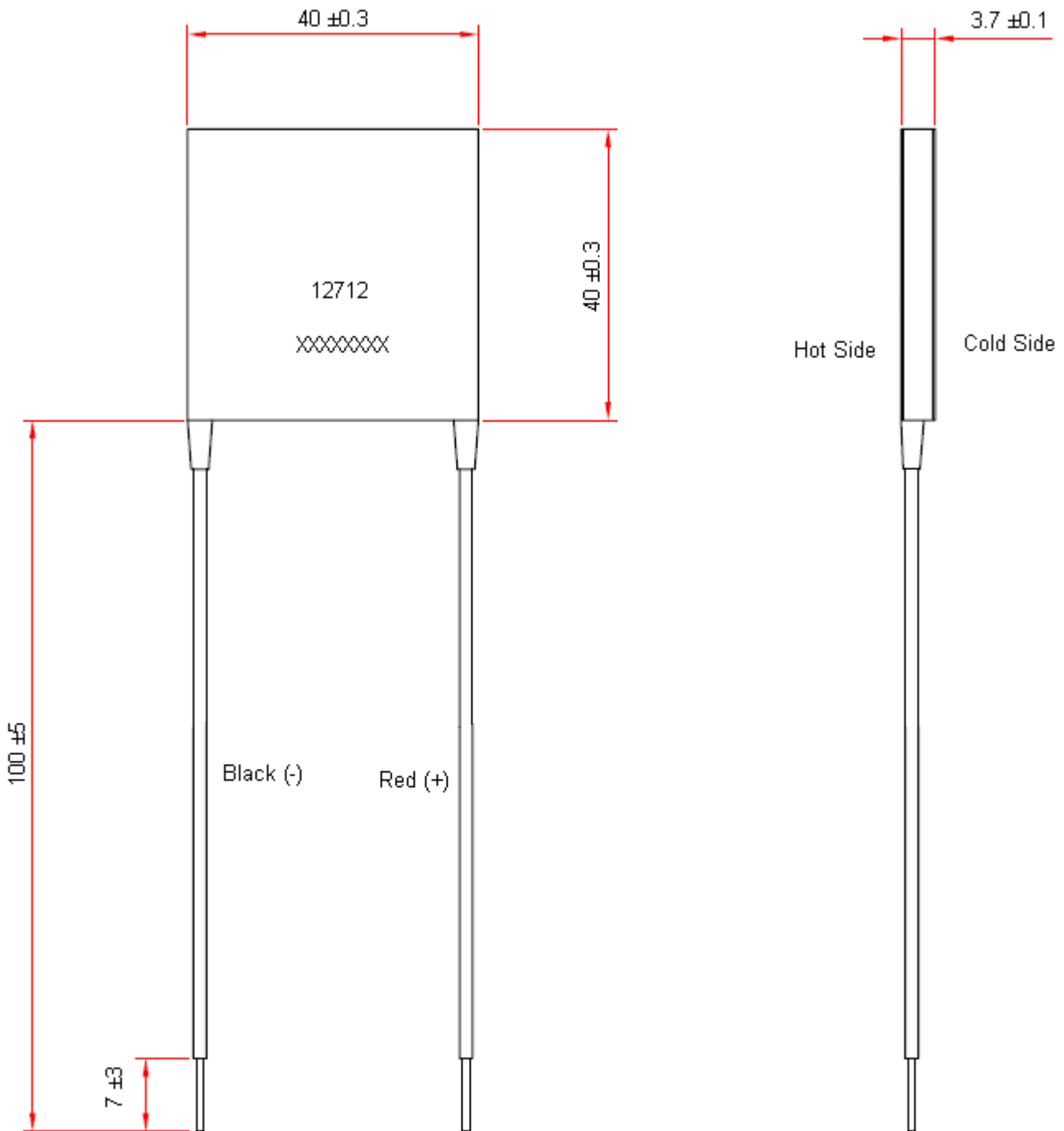
I max. (A)	U max. (V)	Qc max. W	dT max. °C	A	B	H	Part Number
15.4	24.6	222	68	40	40	3.7	MCHPE-200-14-06-E

Dimensions : Millimetres

Thermoelectric Module



Outline Drawing



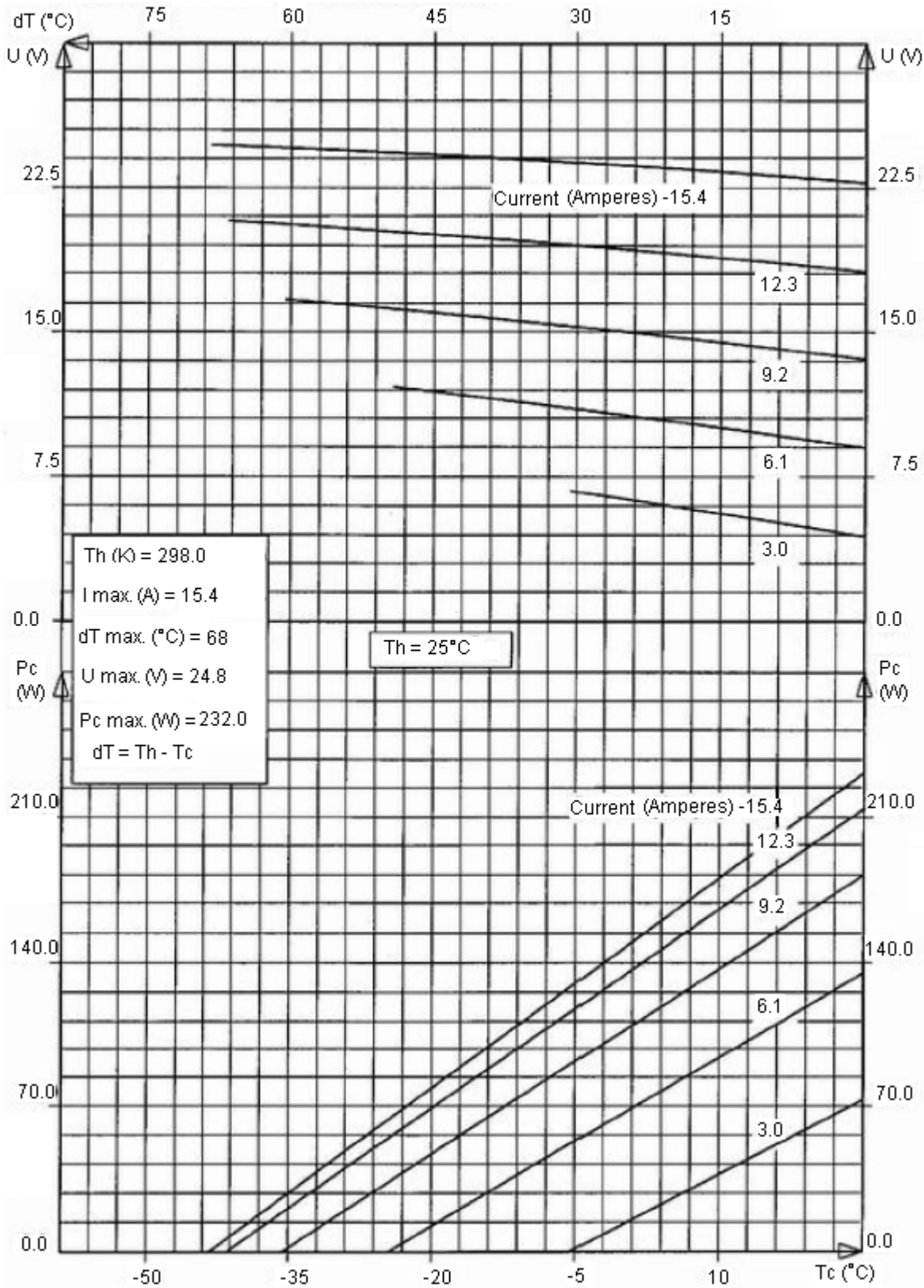
Dimensions : Millimetres



Thermoelectric Module



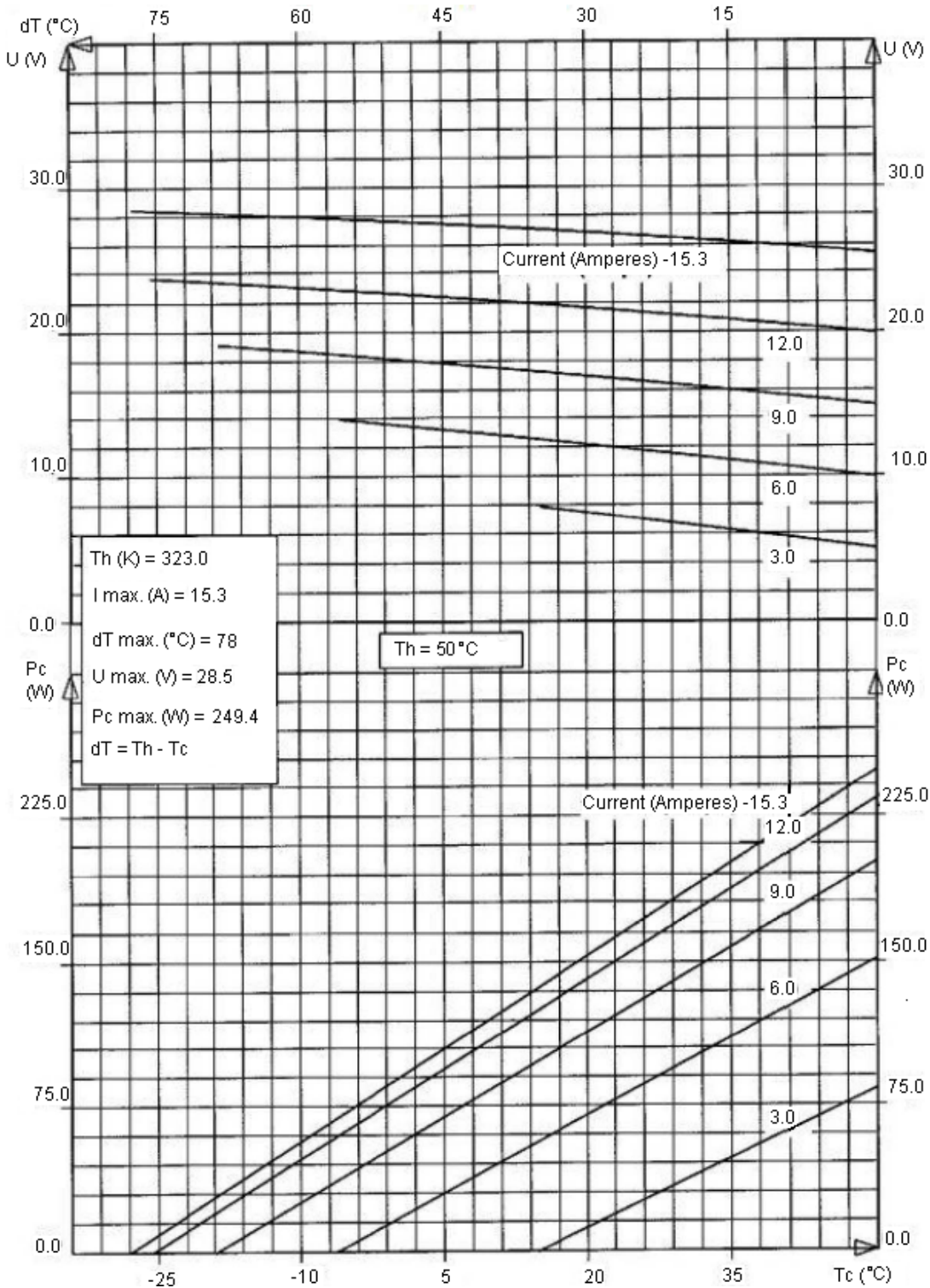
Performance Graph (298K)



Thermoelectric Module



Performance Graph (323K)



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