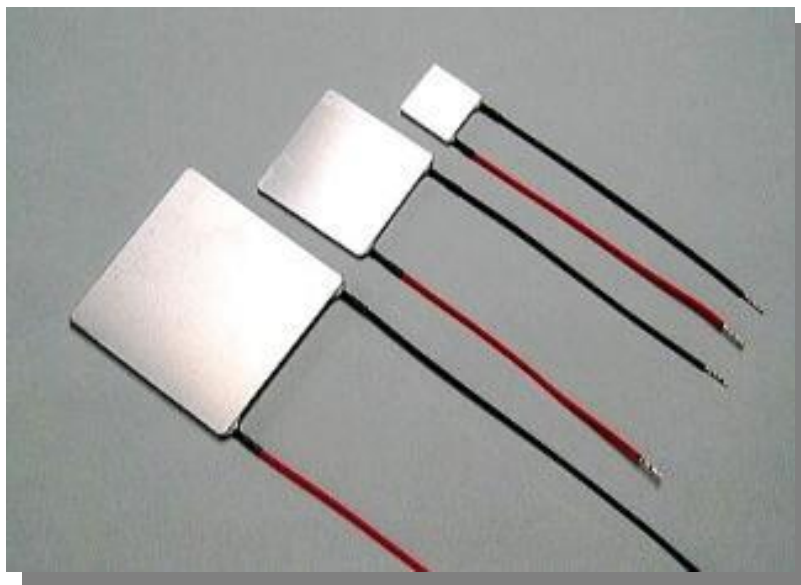


Peltier module

UT2020-AL-CE/UT4040-AL/UT-7070-AL

High reliability with over 500,000 cycles of cold and heat.
(10°C⇔100°C)



Feature

By directly bonding P/N type thermoelectric semiconductors to the surface of aluminum without a rigid body, the highest level of thermal transfer rate has been achieved.

By placing a support in the center of the P/N type thermoelectric semiconductor, thermal distortion is alleviated, and resistance to thermal stress is improved (it can withstand over 500,000 cycles of heating and cooling experiments).

We have successfully achieved the enlargement of modules (UT7070-AL), which is difficult for other companies, along with improved resistance to thermal stress.

Waterproof design to accommodate condensation at low temperatures.

Completely made in Japan. With a 0% initial defect rate due to inspections conducted on all modules before shipment, it offers outstanding reliability compared to overseas Peltier modules from other companies.

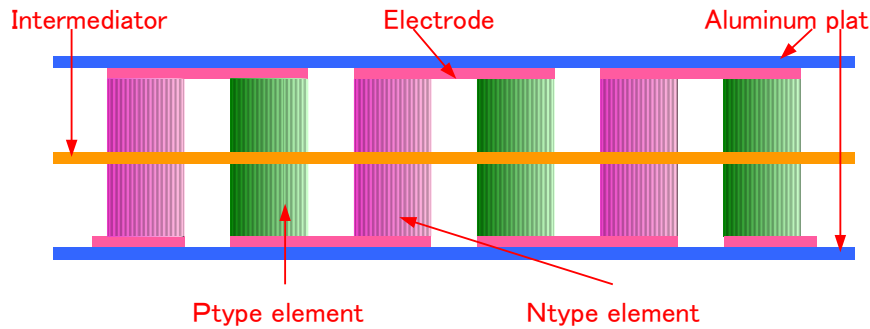
Specification

MODEL	UT2020-AL	UT3030-AL	UT4040-AL	UT7070-AL
Dimension (mm)	22 × 22	30 × 30	47 × 48	72 × 73
Dimension H (mm)	3.45	3.52	3.56	5.00
Max Current (A)	3.2	3.5	7.0	
Max Voltage (V)	7.0	15.0	19.0	28.0
Max. Temp-Difference (°C) Th=50°C	67.0	72.0	76.5	72.0
Max. Absorption (W)	13.0	25.0	64.0	132.0
Max. TempTolerrance (°C)	150			
W e i g h t (g)	7.5	12.0	26.0	90.0

Structure

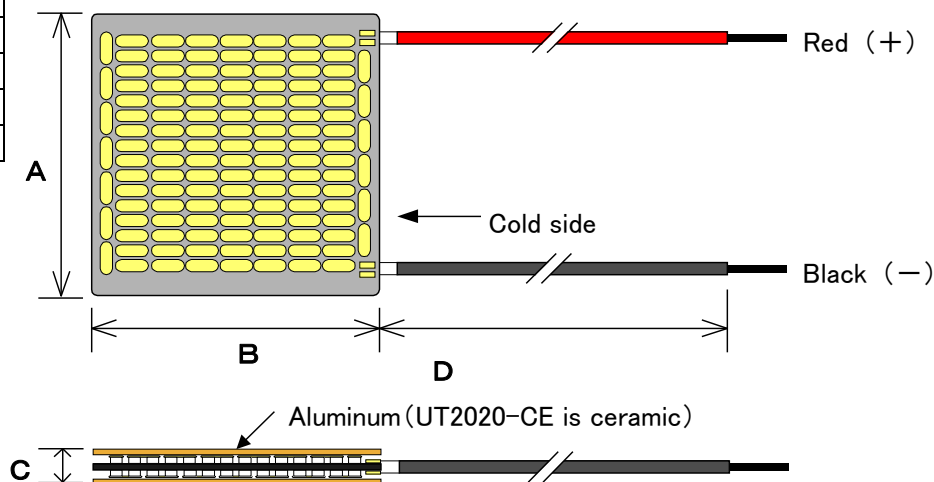
A typical Peltier module maintains its shape by sandwiching two semiconductor elements between two supports. However, Sensor Controls has succeeded in developing a unique semiconductor technology that allows for the placement and fixation of single support in the center.

The advantage of placing the support body in the center is that the heat generated by the P/N semiconductor element is directly transferred to the surface aluminum, increasing the heat transfer rate. Additionally, the central support body also acts as a heat absorber, resulting in higher resistance to thermal stress compared to products from other companies, leading to a longer lifespan without degradation.



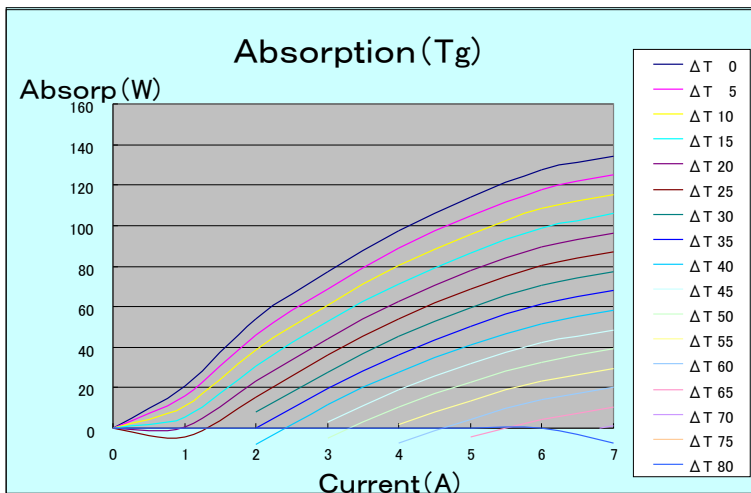
Dimensions

MODEL	A	B	C	D
UT2020-AL	22mm	22mm	3.45mm	130mm
UT3030-AL	30mm	30mm	3.52mm	130mm
UT4040-AL	47mm	48mm	3.56mm	130mm
UT7070-AL	72mm	73mm	5.00mm	210mm



Performance Graph

■ UT7070-AL



■ UT4040-AL

