

**●SOT-89-5 Power Dissipation**

Power dissipation data for the SOT-89-5 is shown in this page.

The value of power dissipation varies with the mount board conditions.

Please use this data as one of reference data taken in the described condition.

**1. Measurement Condition (Reference data)**

Condition : Mount on a board

Ambient : Natural convection

Soldering : Lead (Pb) free

Board : Dimensions 40×40mm (1600mm<sup>2</sup> in one side)

Copper (Cu) traces occupy 50% of the board area

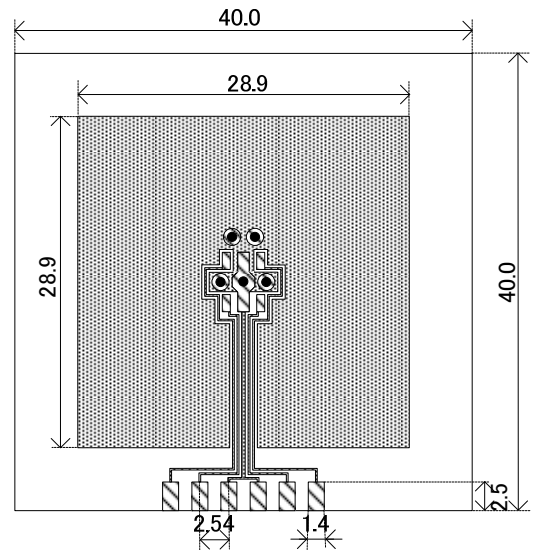
In top and back faces

Package heat-sink is tied to the copper traces

Material : Glass Epoxy (FR-4)

Thickness : 1.6mm

Through-hole : 5 x 0.8 Diameter

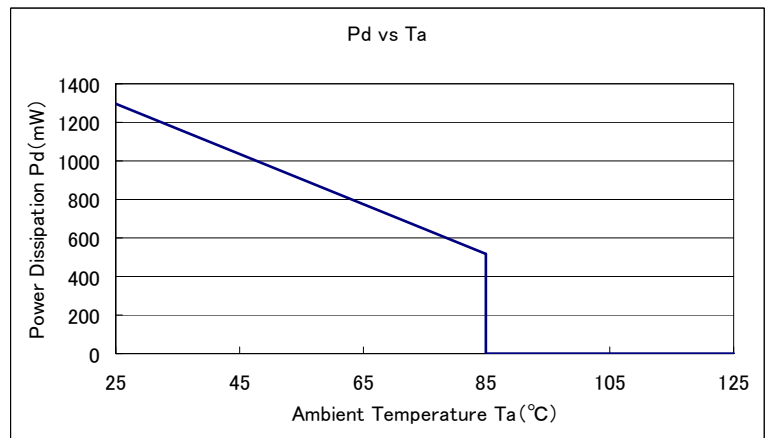


Evaluation Board (Unit: mm)

**2. Power Dissipation vs. Ambient temperature ( 85°C )**

Board Mount ( Tjmax=125°C)

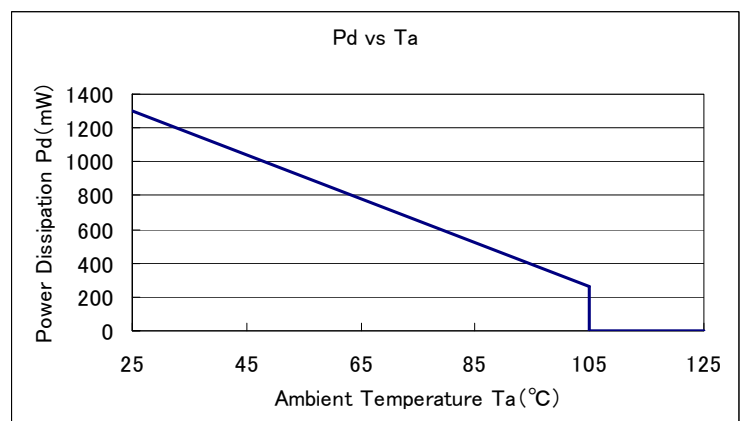
Ambient Temperature (°C)	Power Dissipation Pd (mW)	Thermal Resistance (°C/W)
25	1300	76.92
85	520	



**3. Power Dissipation vs. Ambient temperature ( 105°C )**

Board Mount ( Tjmax=125°C)

Ambient Temperature (°C)	Power Dissipation Pd (mW)	Thermal Resistance (°C/W)
25	1300	76.92
105	260	



● **SOT-89-5 Power Dissipation (JESD51-7)**

Power dissipation data for the SOT-89-5 is shown in this page.

The value of power dissipation varies with the mount board conditions.

Please use this data as one of reference data taken in the described condition.

1. Measurement Condition (Reference data)

Condition: Mount on a board

Ambient : Natural convection

Soldering: Lead (Pb) free

Board: The board using 4 copper layer.

(76.2mm×114.3mm...Area about 8700mm<sup>2</sup>)

1st layer: No copper foil (Signal layer)

2nd layer: 70mm×70mm\_Connected to heat-sink

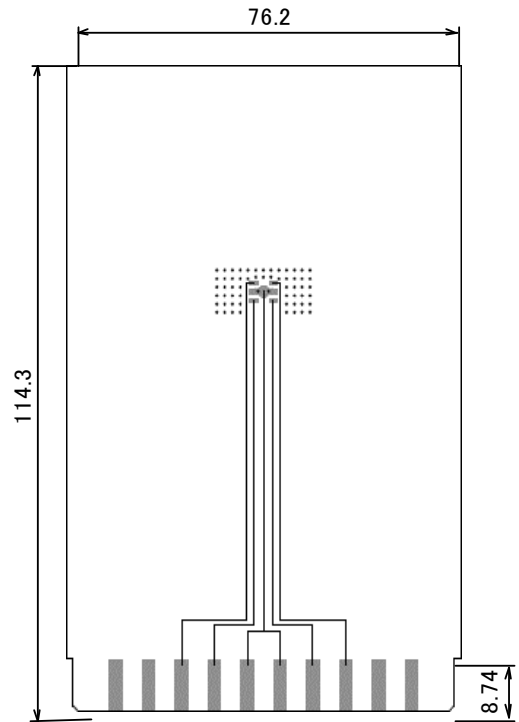
3rd layer: 70mm×70mm\_Connected to heat-sink

4th layer: No copper foil (Signal layer)

Material: Glass Epoxy (FR-4)

Thickness: 1.6 mm

Through-hole: φ0.2mm×60pcs



Evaluation Board (Unit:mm)

2. Power Dissipation vs. Ambient Temperature

Board Mount (T<sub>j</sub> max = 125°C)

Ambient Temperature (°C)	Power Dissipation Pd(mW)	Thermal Resistance (°C/W)
25	1750	57.14
105	350	

