



DB2G41000L

Silicon epitaxial planar type

For rectification

■ Features

- Low forward voltage VF
- Forward current (Average) IF(AV) = 1 A rectification is possible
- RoHS compliant
(EU RoHS / MSL:Level 1 compliant)

■ Marking Symbol: A1

■ Packaging

Embossed type (Thermo-compression sealing) : 16 000 pcs / reel (standard)

■ Absolute Maximum Ratings Ta = 25 °C

| Parameter | Symbol | Rating | Unit |
|---|--------|-------------|------|
| Reverse voltage | VR | 40 | V |
| Maximum peak reverse voltage | VRM | 40 | V |
| Forward current | IF | 1.0 | A |
| Non-repetitive peak forward surge current ^{*1} | IFSM | 15 | A |
| Junction temperature | Tj | 150 | °C |
| Operating ambient temperature ^{*2} | Topr | -40 to +85 | °C |
| Storage temperature | Tstg | -55 to +150 | °C |

Note) *1: 50 Hz sine wave 1 cycle (Non-repetitive peak current)

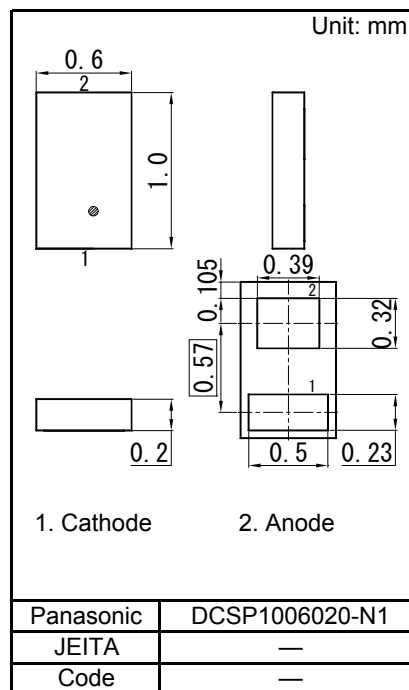
*2: VR × 50%, Rth(j-a) = Rth(j-l)

■ Thermal Characteristics

| Parameter | Symbol | Rating | Unit |
|---|----------------------|--------|------|
| Thermal Resistance, Junction to Lead | R _{th(j-l)} | 20 | °C/W |
| Thermal Resistance, Junction to Ambient ^{*1} | R _{th(j-a)} | 92 | °C/W |
| Thermal Resistance, Junction to Ambient ^{*2} | R _{th(j-a)} | 177 | °C/W |

Note) *1: When mounted on 36 μm Cu pad(620.0mm²) on 25.4mm×25.4mm board of FR4 material.

*2: When mounted on 36 μm Cu pad(108.6mm²) on 25.4mm×25.4mm board of FR4 material.



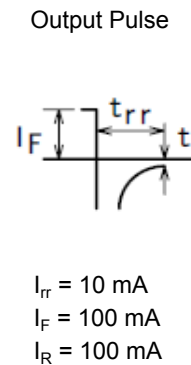
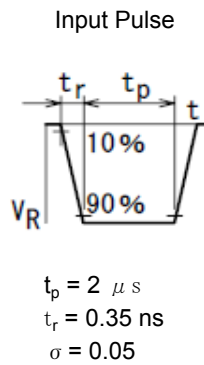
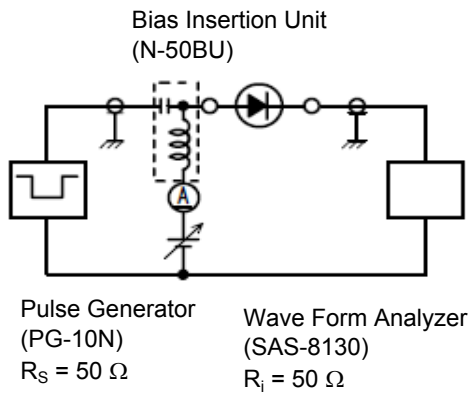


■ Electrical Characteristics Ta = 25 °C ± 3 °C

| Parameter | Symbol | Conditions | Min | Typ | Max | Unit |
|--------------------------|-----------------|---|-----|------|------|------|
| Forward voltage | VF | IF = 0.5 A | | 0.37 | 0.43 | V |
| Forward voltage | VF | IF = 1.0 A | | 0.44 | 0.53 | V |
| Reverse current | IR | VR = 40 V | | | 150 | μA |
| Terminal capacitance | Ct | VR = 10 V, f = 1 MHz | | 30 | | pF |
| Reverse recovery time *1 | t _{rr} | IF = IR = 100 mA, I _{rr} = 10 mA | | 9 | | ns |

Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7031 measuring methods for diodes.

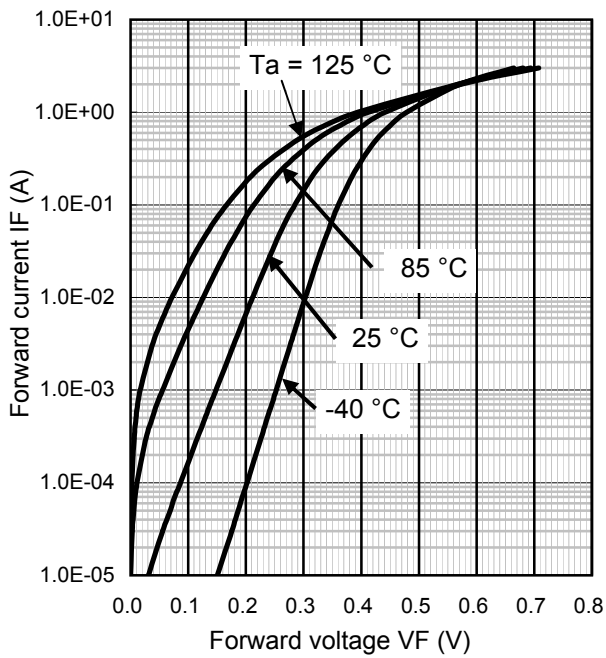
- This product is sensitive to electric shock (static electricity, etc.). Due attention must be paid on the charge of a human body and the leakage of current from the operating equipment.
- *1: t_{rr} test circuit



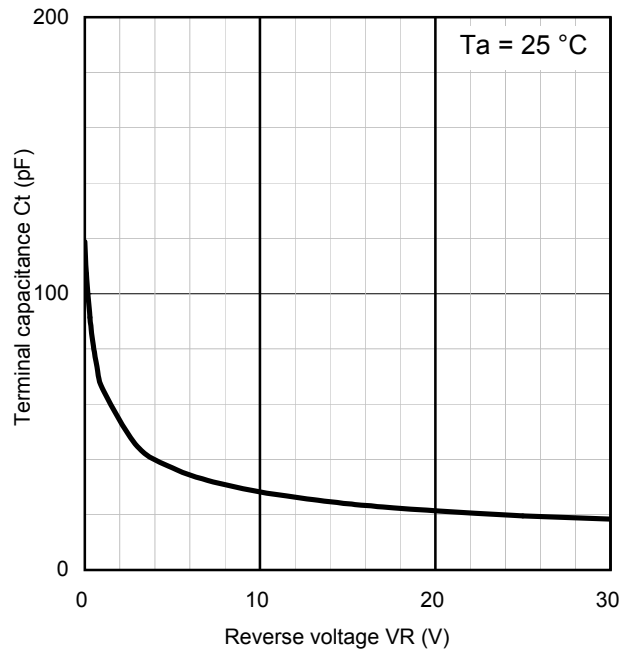


Technical Data (reference)

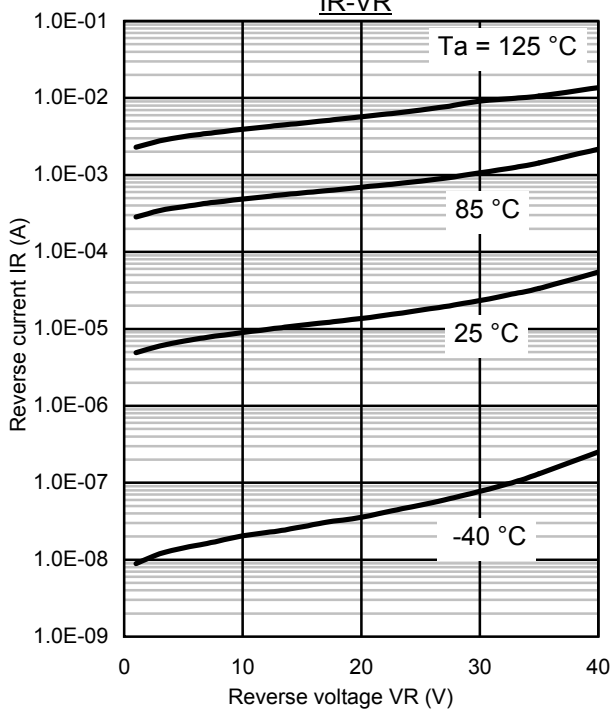
IF-VF



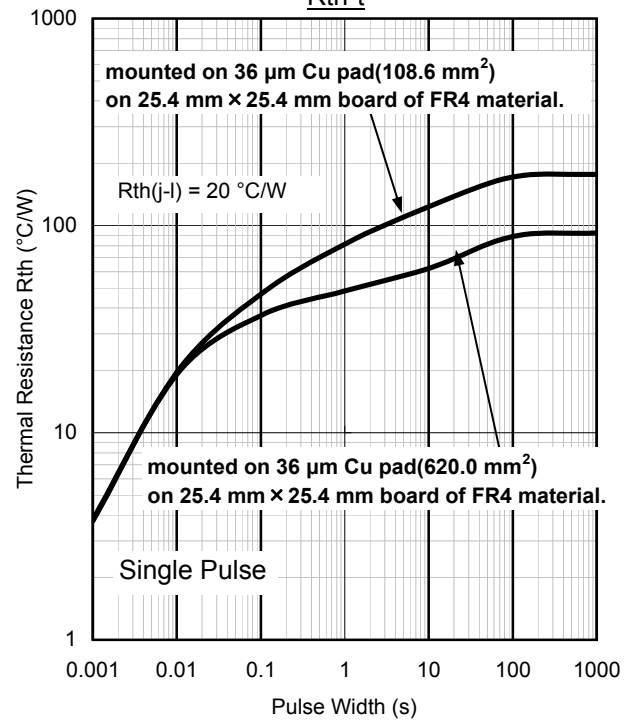
Ct-VR



IR-VR



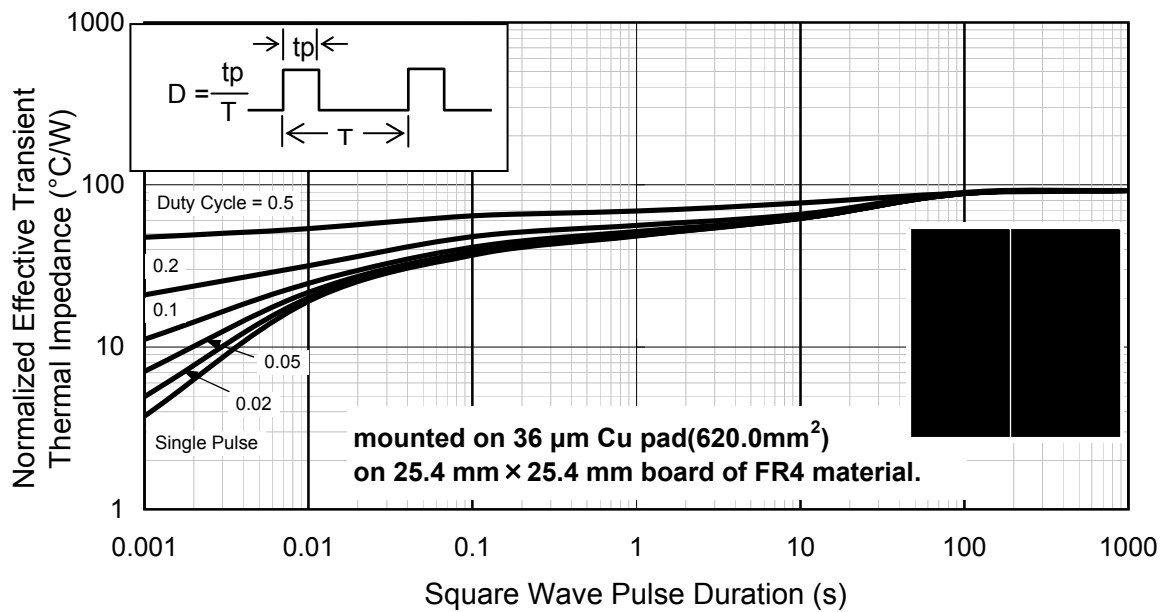
Rth-t



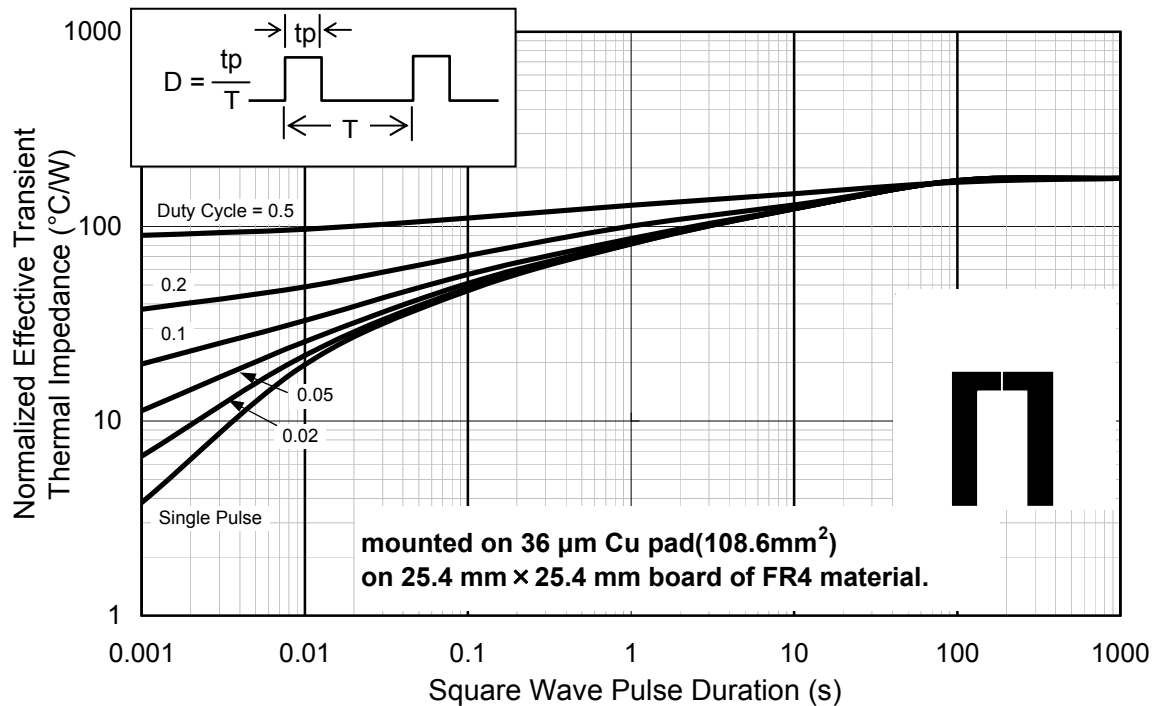


Technical Data (reference)

Rth-t

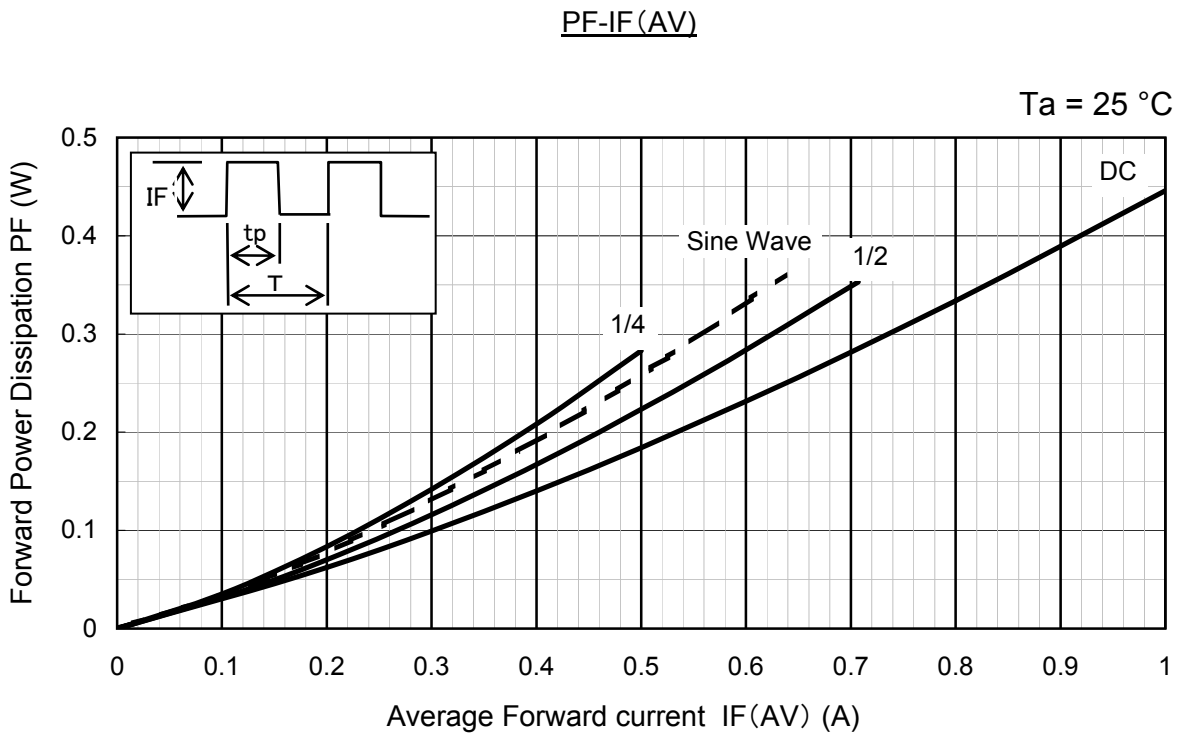
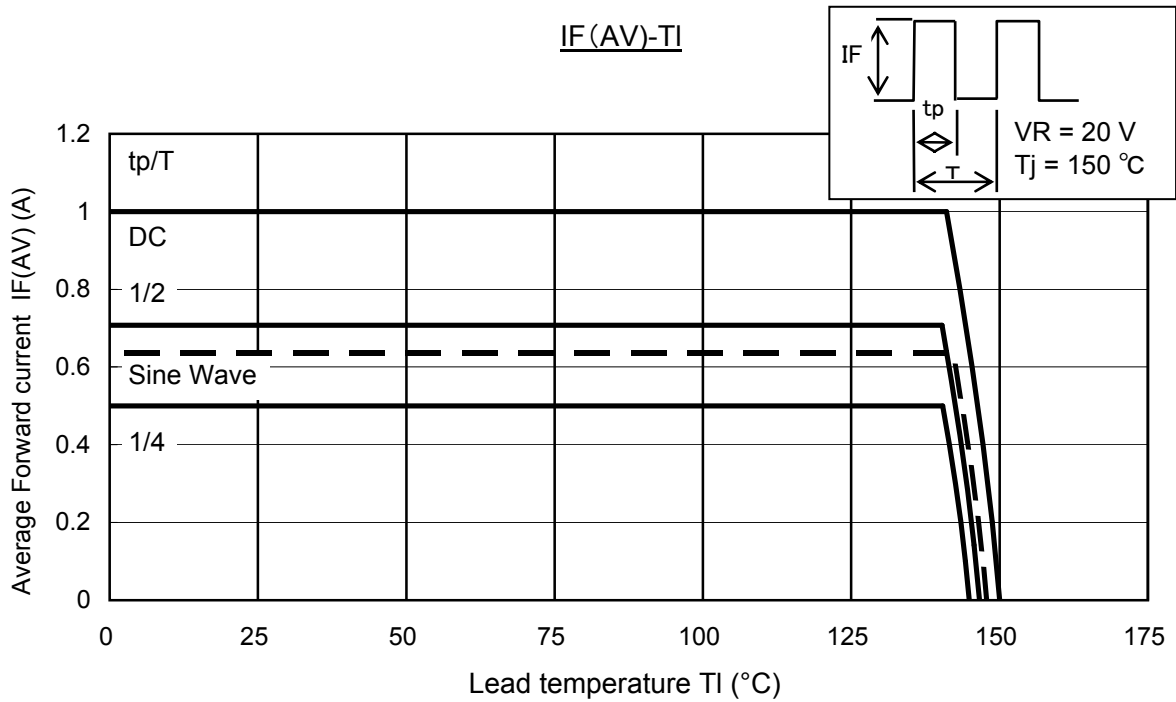


Rth-t





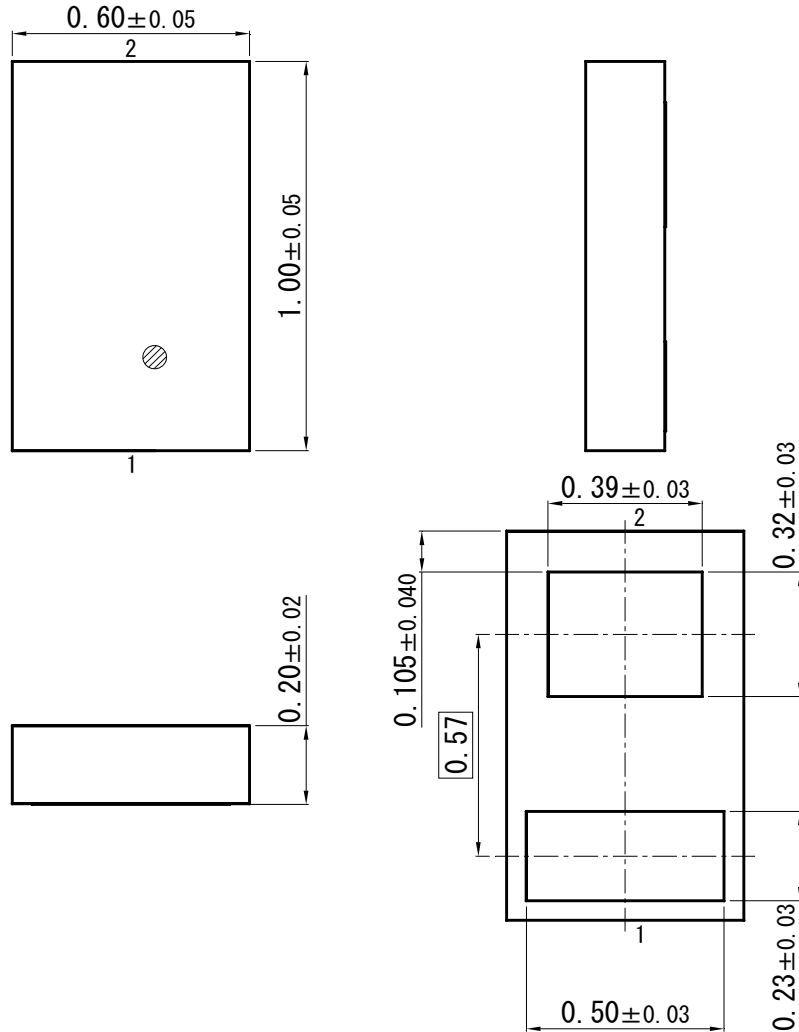
Technical Data (reference)



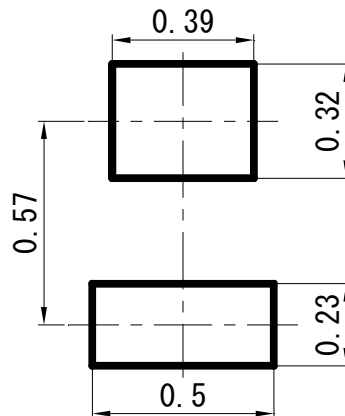


DCSP1006020-N1

Unit: mm



■ Land Pattern (Reference) (Unit: mm)



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