

10A 300V 30ns
FRD Type TCU10A30

OUTLINE DRAWING

構造 : 拡散型シリコンダイオード (FRD)

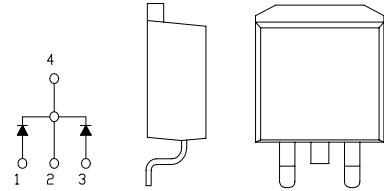
Diffusion type Silicon diode

Axial Lead Type

用途 : 力率改善用コンバータ、チョッパの高周波整流用

For Power Factor Improvement,

High frequency rectification


最大定格 MAXIMUM RATINGS(Ta = 25 : unless otherwise specified)

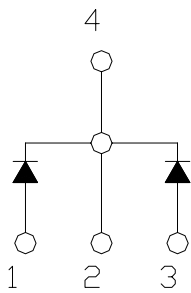
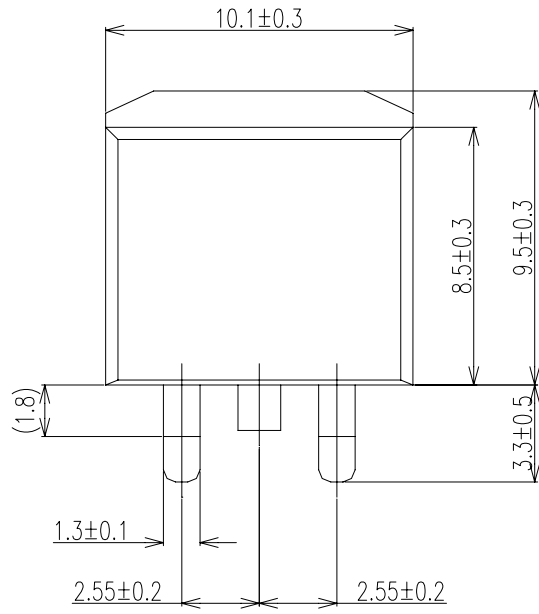
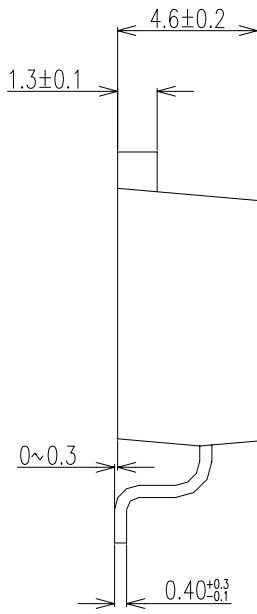
Approx Net Weight: 1.4g

| Item | Symbol | Condition | Max. Rated value | Unit |
|--|--------------|--|------------------|------|
| くり返しピーク逆電圧 Repetitive peak reverse voltage | V_{RRM} | | 300 | V |
| 平均整流電流 Average rectified forward current | I_O | 50Hz 正弦全波, 抵抗負荷 Tc = 109°C 50Hz full sine wave, Resistance load | 10 | A |
| 実効順電流 R.M.S. forward current | $I_{F(RMS)}$ | | 11.1 | A |
| サージ順電流 Surge forward current | I_{FSM} | 50Hz 正弦全波 1 サイクル 非くり返し 50Hz full sine wave 1cycle, non-repetitive | 100 | A |
| 動作接合温度範囲 Operating junction temperature range | T_{jw} | | - 40 ~ + 150 | |
| 保存温度範囲 Storage temperature range | T_{stg} | | - 40 ~ + 150 | |

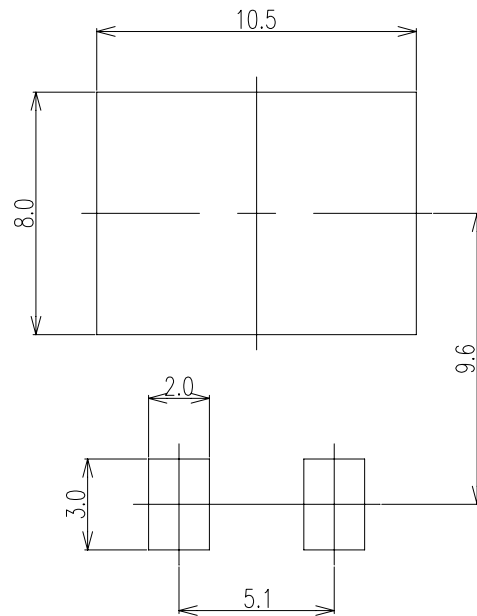
電氣的・熱的特性 ELECTRICAL / THERMAL CHARACTERISTICS

| Item | Symbol | Condition | Min. | Typ. | Max. | Unit |
|--------------------------------|---------------|---|------|------|------|---------|
| ピーク逆電流 Peak reverse current | I_{RM} | $V_{RM}=V_{RRM}$ Tj=25 1 素子あたり per diode | - | - | 25 | μ A |
| ピーク順電圧 Peak forward voltage | V_{FM} | $I_{FM}=5A$ Tj=25 1 素子あたり per diode | - | 1.12 | 1.30 | V |
| 逆回復時間 Reverse recovery time | t_{rr} | $I_{FM}=5A$ Tj=25 - di/dt=50A/ μ s | - | 19 | 30 | ns |
| 熱抵抗 Thermal resistance | $R_{th(j-c)}$ | 接合部・ケース間 Junction to case | - | - | 3 | /W |

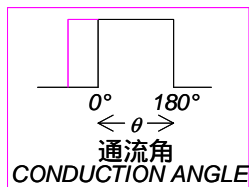
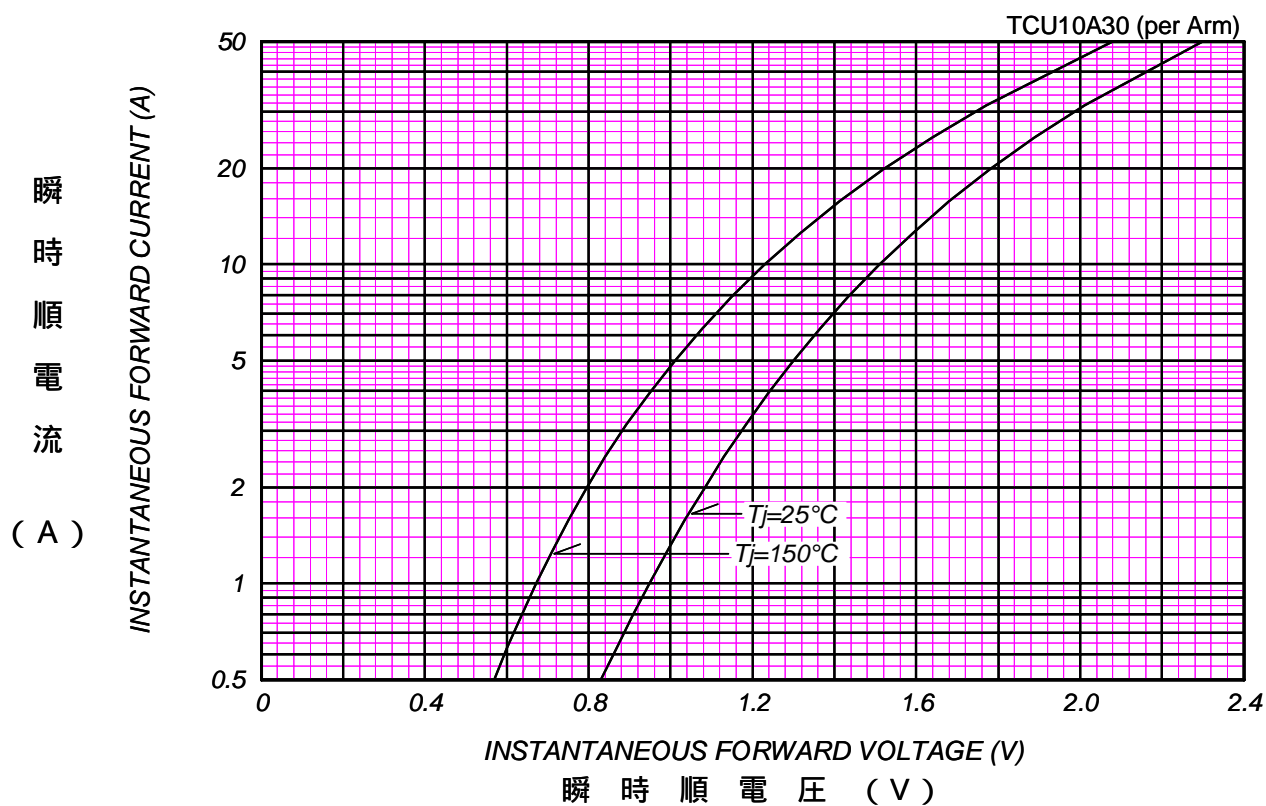
TCU_外形図 (mm)



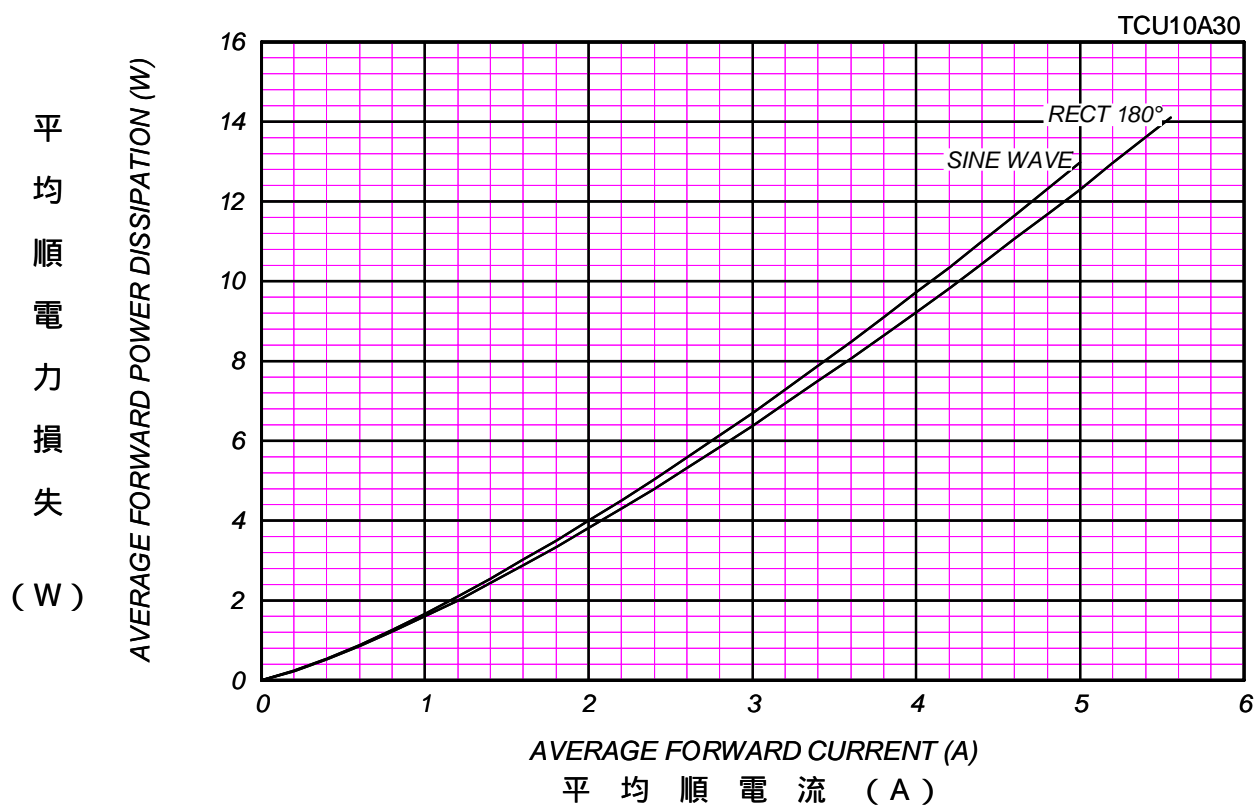
SOLDERING PAD

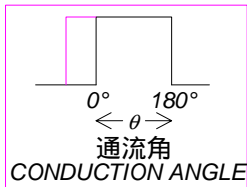


順電压特性
FORWARD CURRENT VS. VOLTAGE

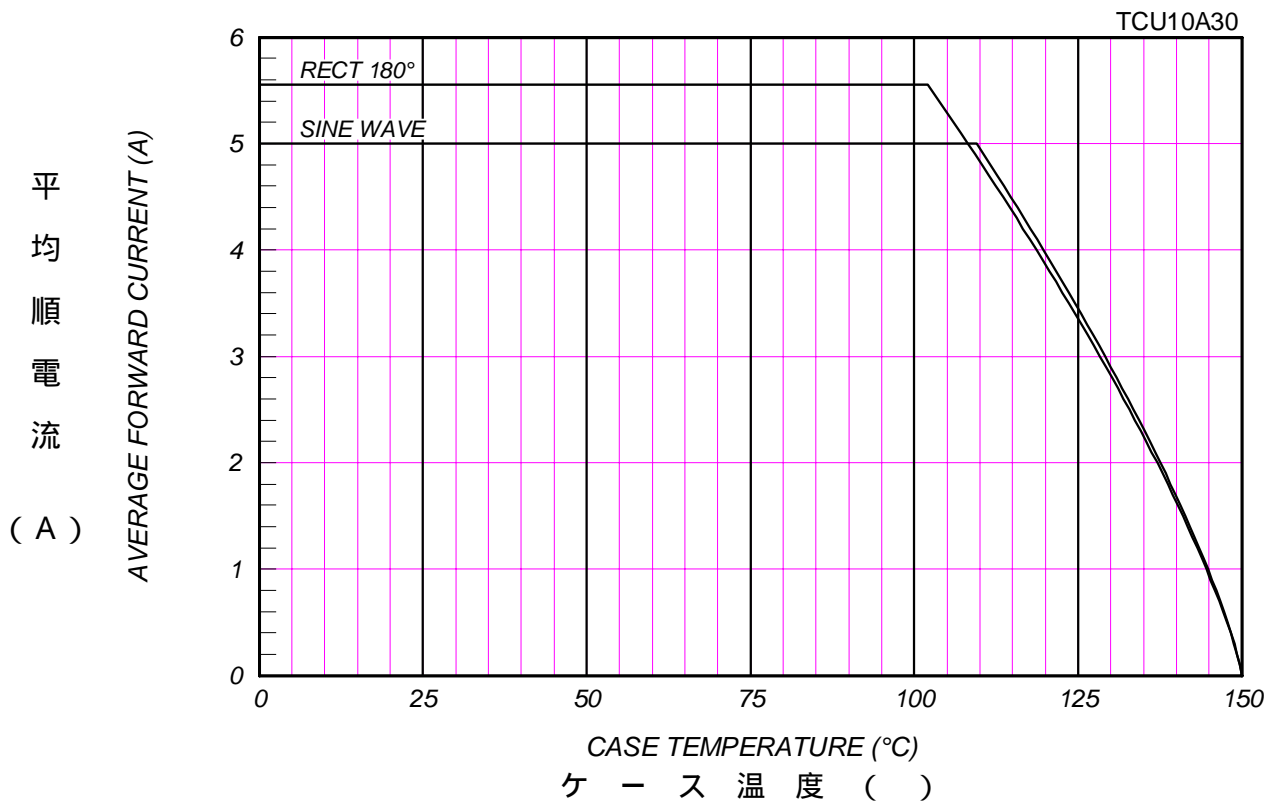


平均順電力損失特性
AVERAGE FORWARD POWER DISSIPATION





平均順電流 - ケース温度定格
AVERAGE FORWARD CURRENT VS. CASE TEMPERATURE



サージ順電流定格
SURGE CURRENT RATINGS

f=50Hz, Half Sine Wave, Non-Repetitive, No Load

