Schottky Barrier Diode

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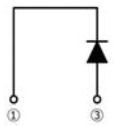
# FSQS10A045




TO-220 Full-Mold 2pin

## ■特長 / Features

- 低VF
  Low forward voltage drop
- 高周波動作
  High frequency operation
- RoHS指令対応
  RoHS compliant

## ■アプリケーション / Applications

- 二次側整流
  Secondary side rectification
- DC/DCコンバータ
  DC/DC converters
- 逆流防止
  Re-Circulating Diode
- 太陽電池用バイパスダイード
  Bypass diode for Solar Cells

## ■最大定格 / Maximum ratings

| Parameter | Symbol | Conditions | Limits | Unit |
|---|---|---|---|---|
| くり返しピーク逆電圧<br>Repetitive Peak Reverse Voltage | $V_{RRM}$ | | 45 | V |
| 平均整流電流<br>Average Rectified Output Current | $I_O$ | Tc=128℃ | 10.0 | A |
| サージ順電流<br>Surge Forward Current | $I_{FSM}$ | 50Hz 正弦半波、1サイクル、非くり返し<br>Half Sine Wave, 1cycle, Non-repetitive | 180 | A |
| 動作接合温度範囲<br>Operating Junction Temperature Range | $T_{jw}$ | | -40 ～ +150 | ℃ |
| 保存温度範囲<br>Storage Temperature Range | $T_{stg}$ | | -40 ～ +150 | ℃ |

## ■電気的特性 / Electrical characteristics

| Parameter | Symbol | Conditions | Min. | Typ. | Max. | Unit |
|---|---|---|---|---|---|---|
| ピーク逆電流<br>Peak Reverse Current | $I_{RM}$ | $V_{RM}=V_{RRM}$ $T_j$=25℃ | - | - | 0.60 | mA |
| ピーク順電圧<br>Peak Forward Voltage | $V_{FM}$ | $I_{FM}$=10A Tj=25℃ | - | - | 0.54 | V |
| 熱抵抗<br>Thermal Resistance | $R_{th}$ | 接合部ーケース間<br>Junction to Case | - | - | 3.0 | ℃/W |



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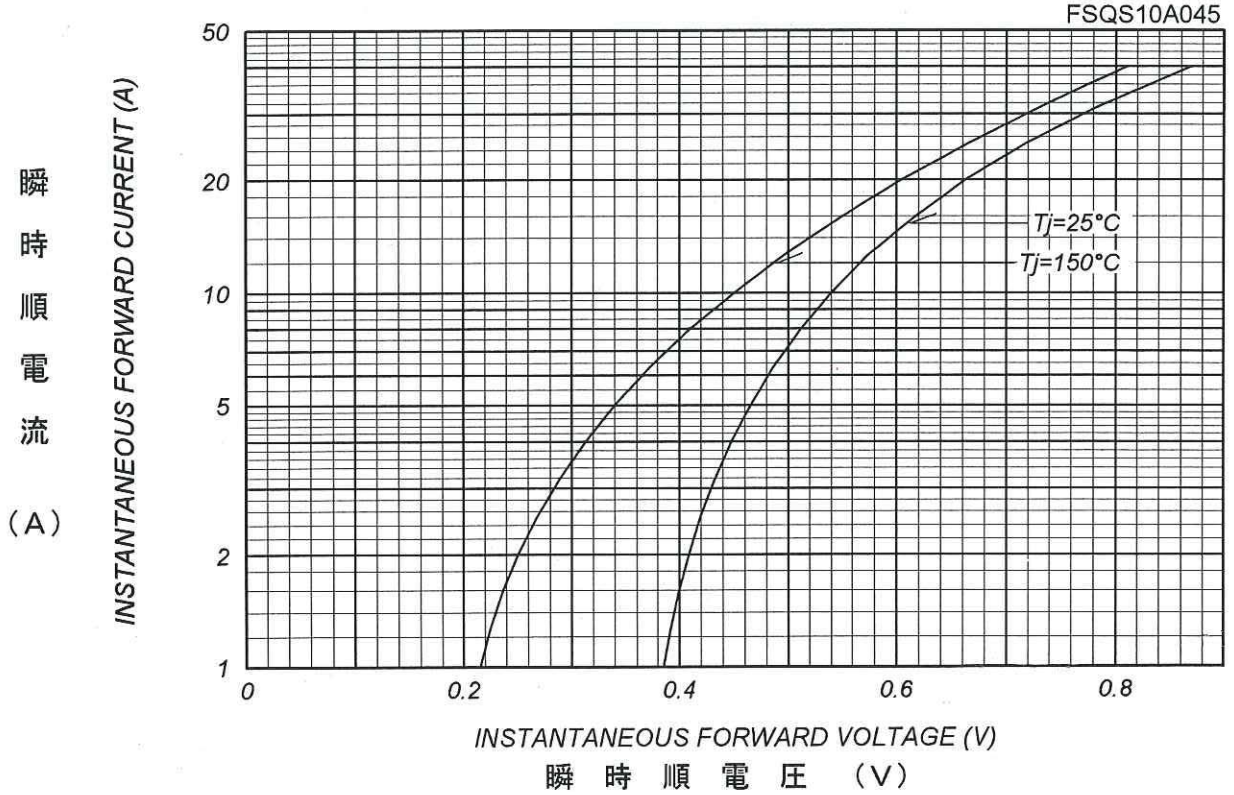
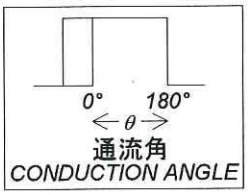
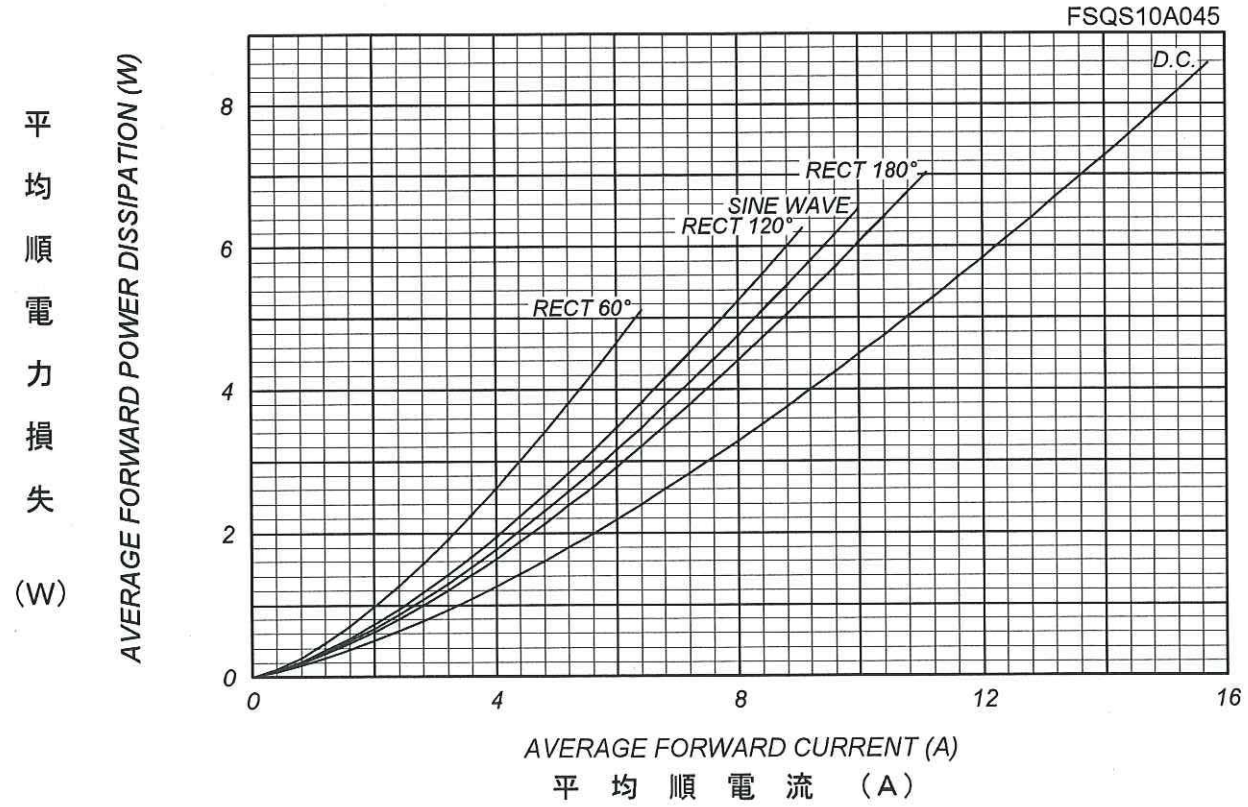
## 順 電 圧 特 性
## FORWARD CURRENT VS. VOLTAGE




## 平 均 順 電 力 損 失 特 性
## AVERAGE FORWARD POWER DISSIPATION

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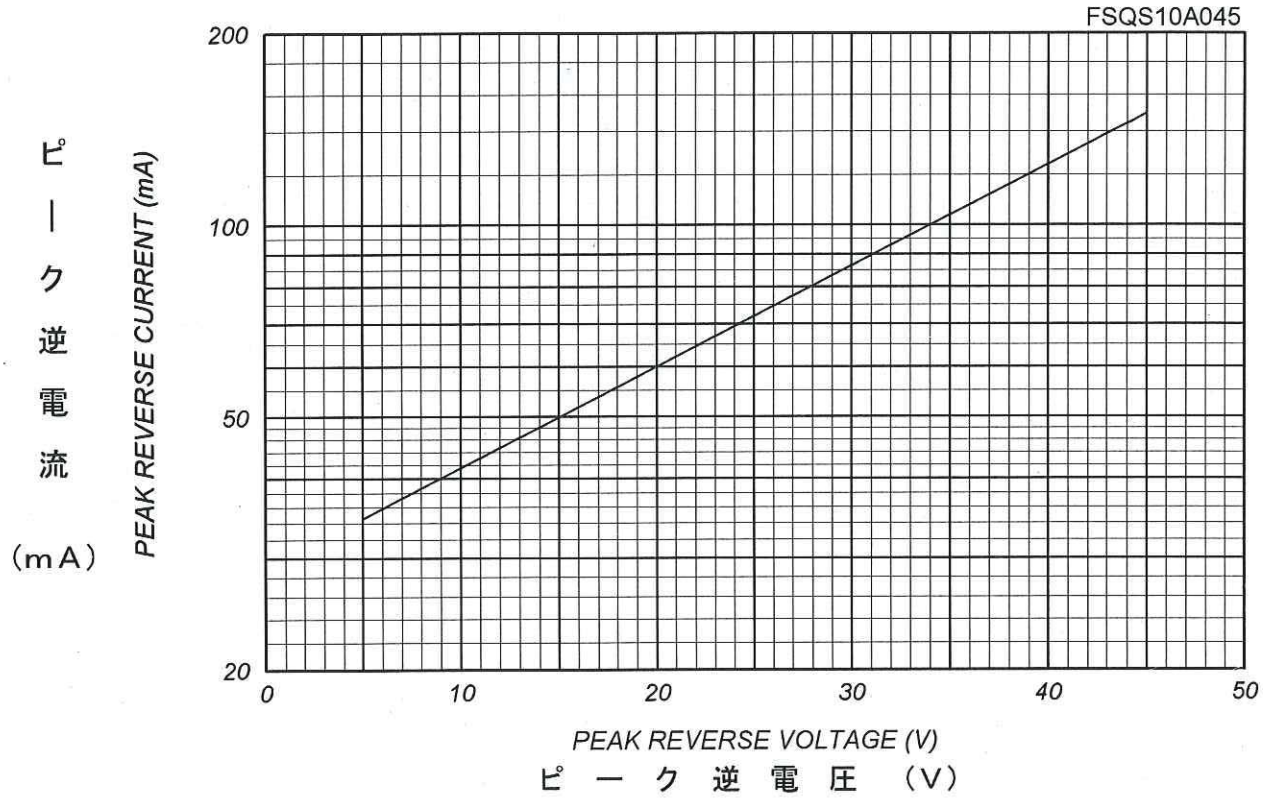
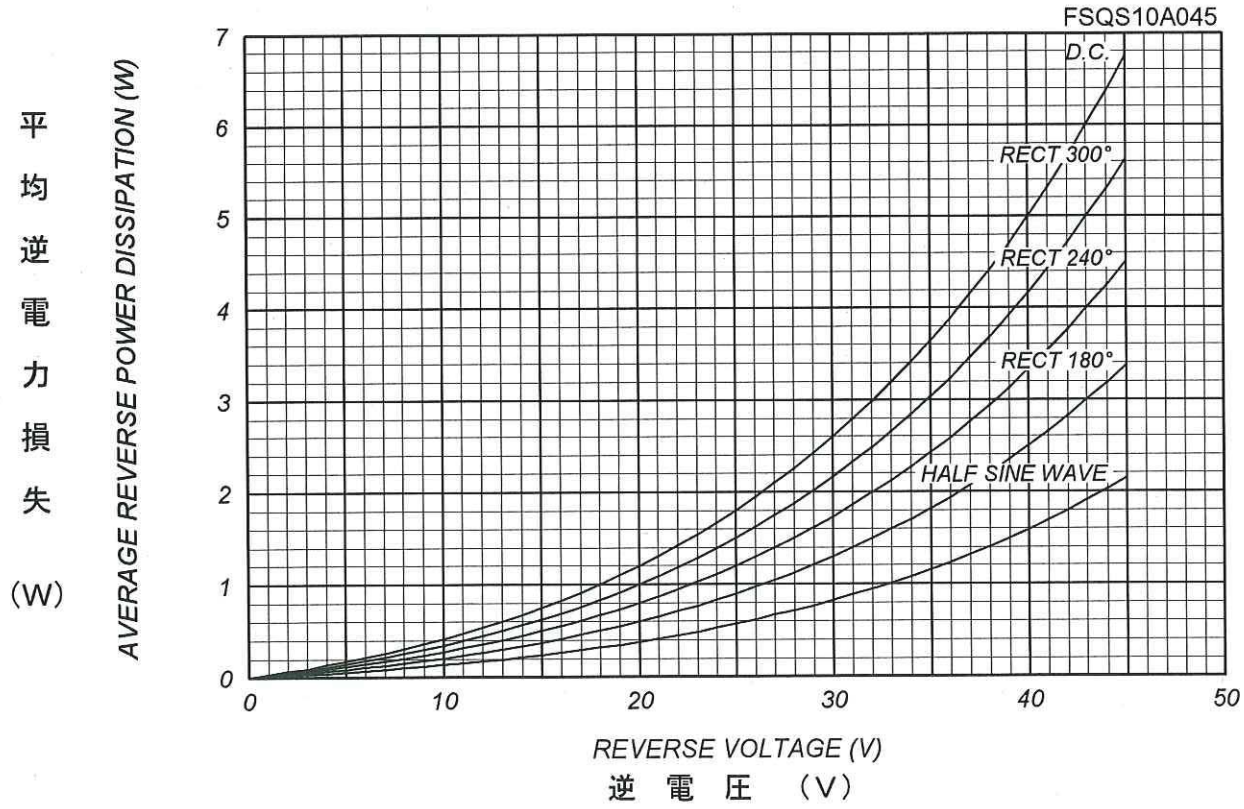
## ピーク逆電流 ー ピーク逆電圧特性
## PEAK REVERSE CURRENT VS. PEAK REVERSE VOLTAGE

Tj= 150 °C




## 平均逆電力損失
## AVERAGE REVERSE POWER DISSIPATION

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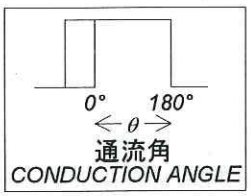
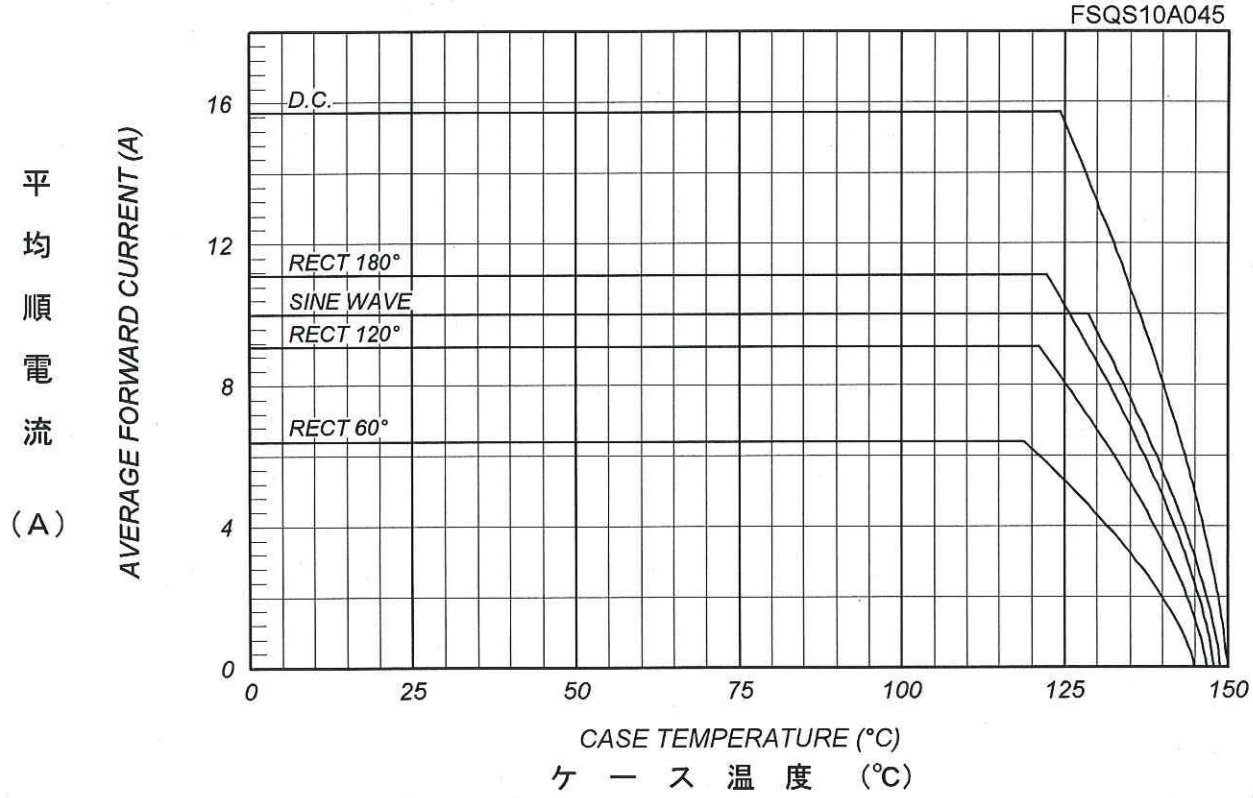


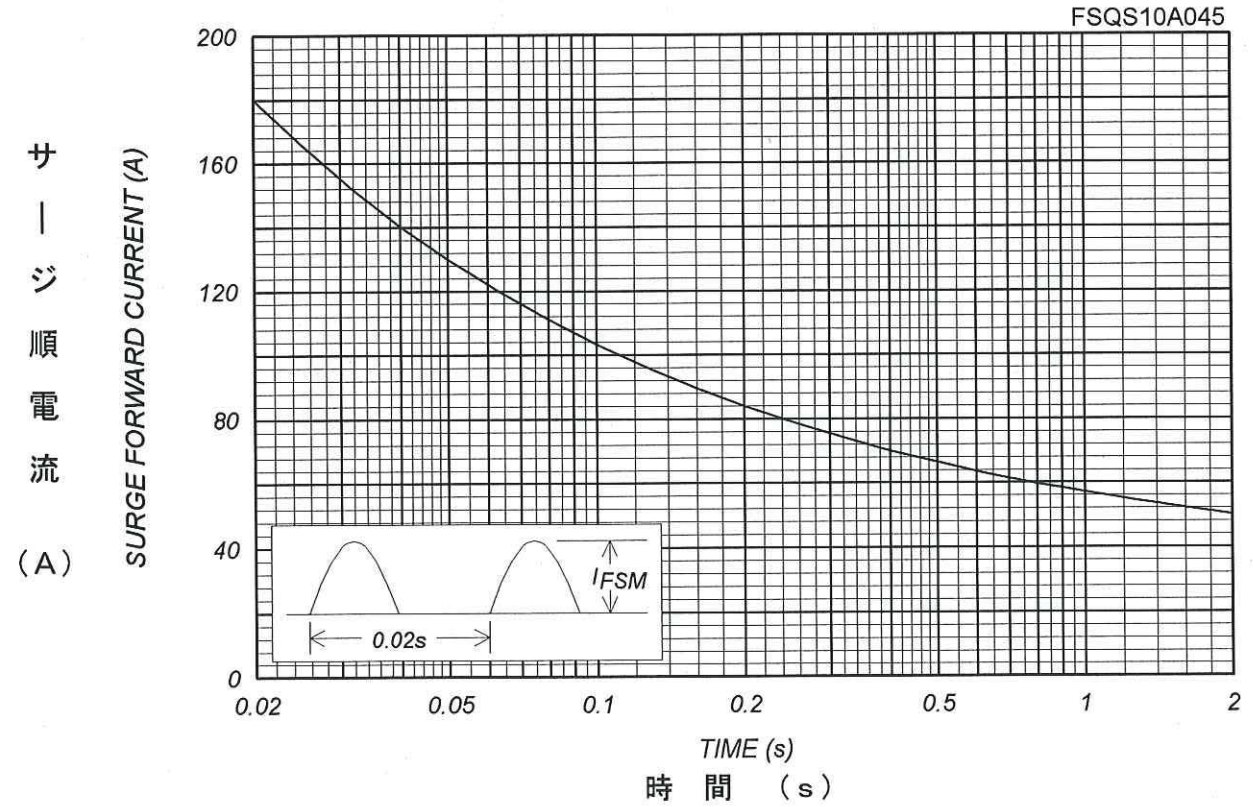

## 平 均 順 電 流 ー ケ ー ス 温 度 定 格
## AVERAGE FORWARD CURRENT VS. CASE TEMPERATURE

$V_{RM}$=20V




## サ ー ジ 順 電 流 定 格
## SURGE CURRENT RATINGS

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

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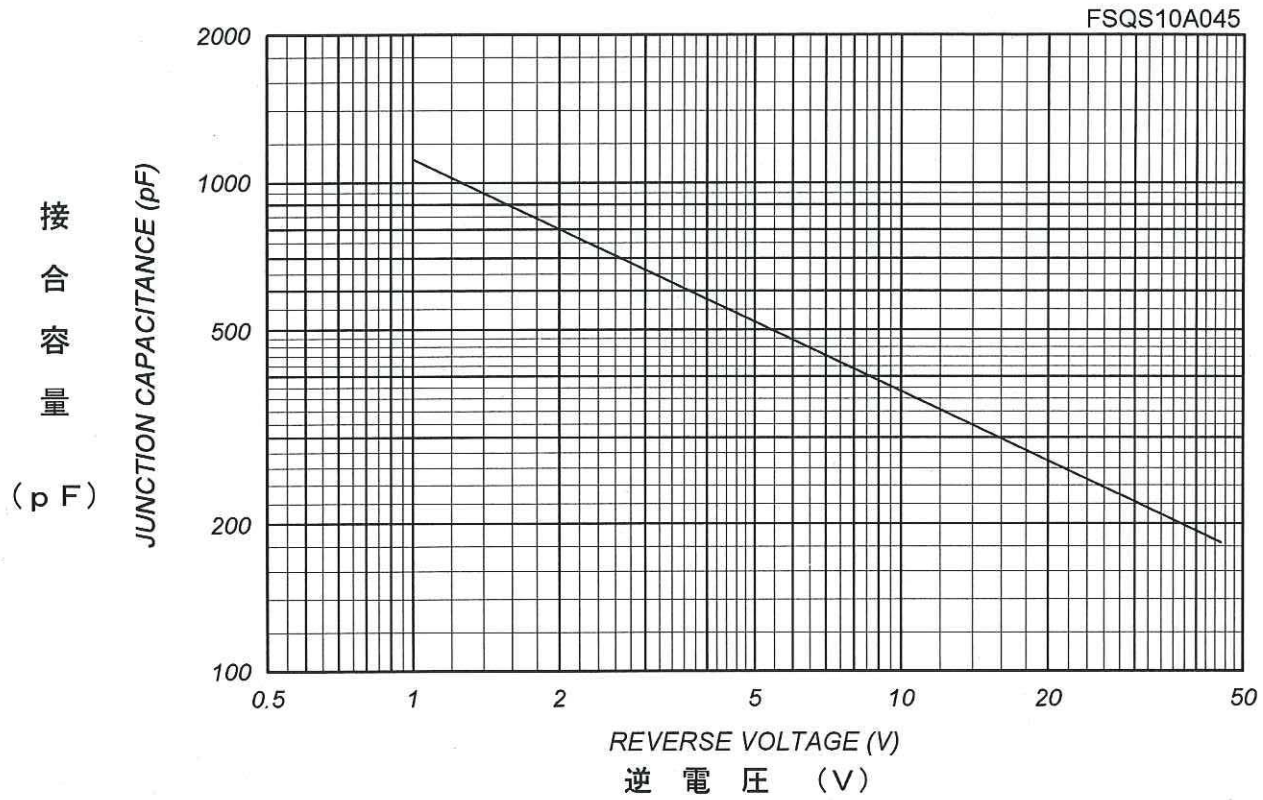
## 接 合 容 量 特 性
## JUNCTION CAPACITANCE VS. REVERSE VOLTAGE

Tj=25°C, Vm=20mV$_{RMS}$, f=100kHz, Typical Value

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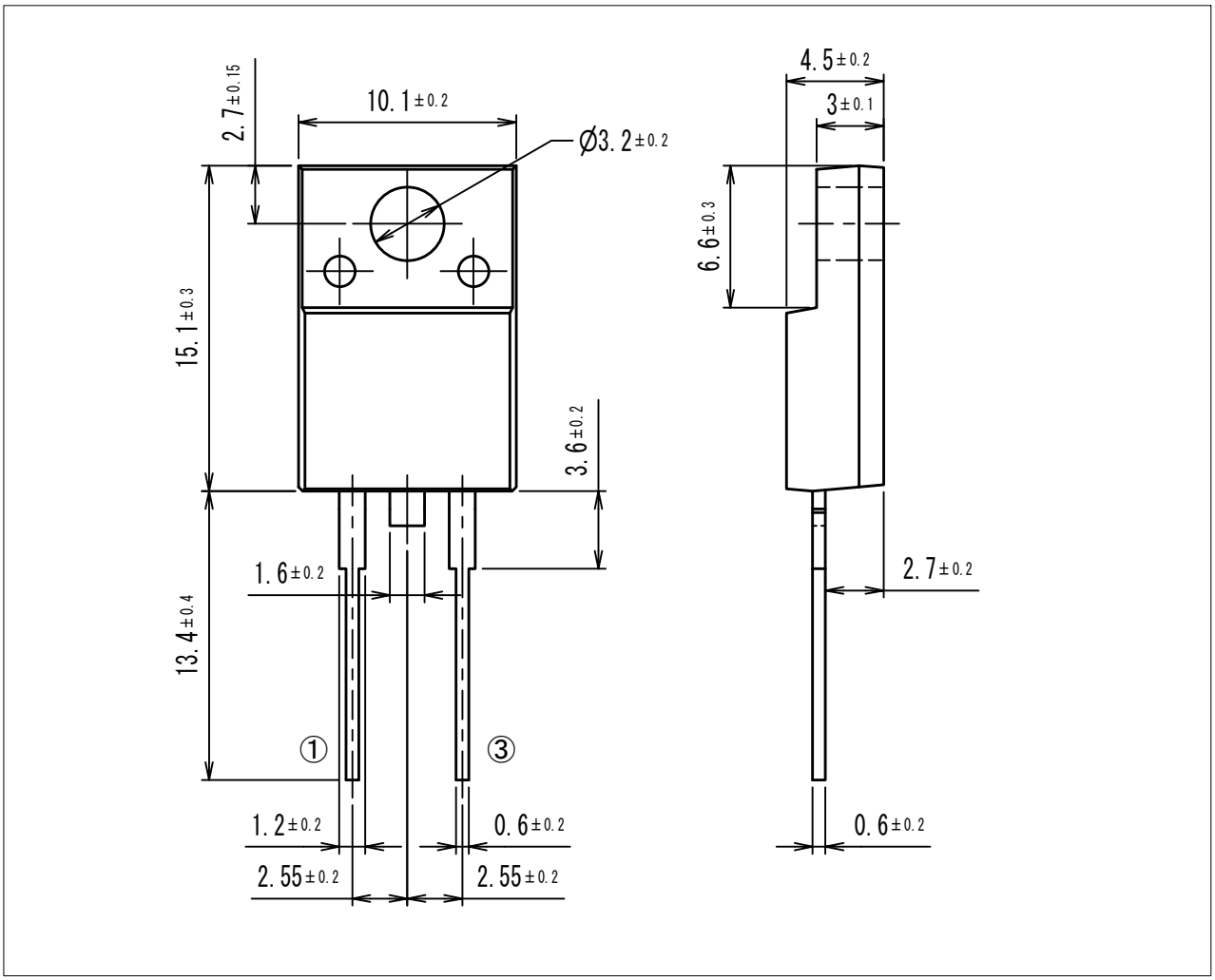
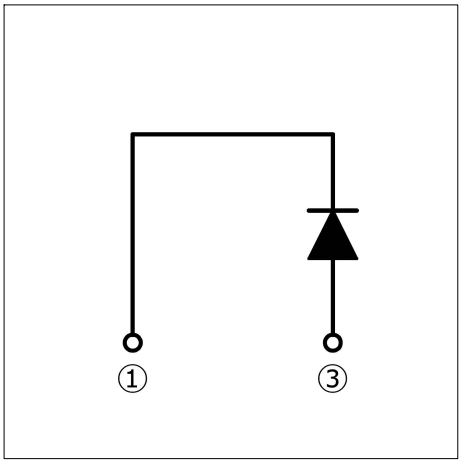
# TO-220FullMold-2pin



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   【Standard applications】
   Computers, office automation and other office equipment, communication terminals, test and measurement equipment, audio/visual equipment, amusement equipment, consumer electronics, machine tools, personal electronic equipment, industrial equipment, etc.

   【特別用途】
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