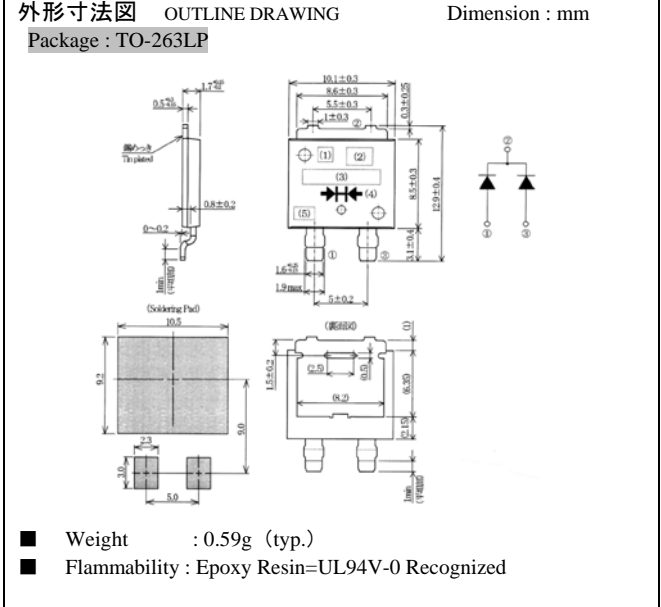


UCHD30A09

構造：ショットキーバリアダイオード (SBD)
 Construction : Schottky Barrier Diode
 用途：高周波整流用
 Application : High-Frequency Rectification

特長 **Feature**
 薄型 SMD Lower Profile SMD
 低熱抵抗 Lower Thermal-Resistance
 高電流 High Current Capability
 Tj=150°C Tj=150°C



■ 絶対最大定格 (表示無き場合 Ta=25°C) Absolute Maximum Ratings (Ta = 25 °C unless otherwise stated)

| 項目 Item | 記号 Symbol | 条件 Conditions | 定格値 Rating | 単位 Units |
|--|---------------------|---|---------------|-------------|
| くり返しピーク逆電圧 Repetitive Peak Reverse Voltage | V _{RRM} | — | 90 | V |
| 平均整流電流 Average Rectified Output Current | I _O | 50Hz 正弦全波, 抵抗負荷 T _C =111°C VR _M =45V 50H Full Sine Wave, Resistive Load | 30 | A |
| 実効順電流 RMS Forward Current | I _{F(RMS)} | — | 33.3 | A |
| サージ順電流 Surge Forward Current | I _{FSM} | 50Hz 正弦全波 1 サイクル 非繰り返し 50Hz Full Sine Wave, 1 cycle, Non-repetitive | 250 | A |
| 繰り返しピークサージ逆電力 Repetitive Peak surge Reverse Power | P _{RRSM} | パルス幅 10 μs, 1 素子当り, T _j =25°C Pulse width 10 μs, per diode, T _j =25°C | 195 | W |
| 動作接合温度範囲 Operation Junction Temperature Range | T _{jw} | — | -40~+150 | °C |
| 保存温度範囲 Storage Temperature Range | T _{stg} | — | -40~+150 | °C |

■ 電氣的・熱的特性 Electrical / Thermal Characteristics

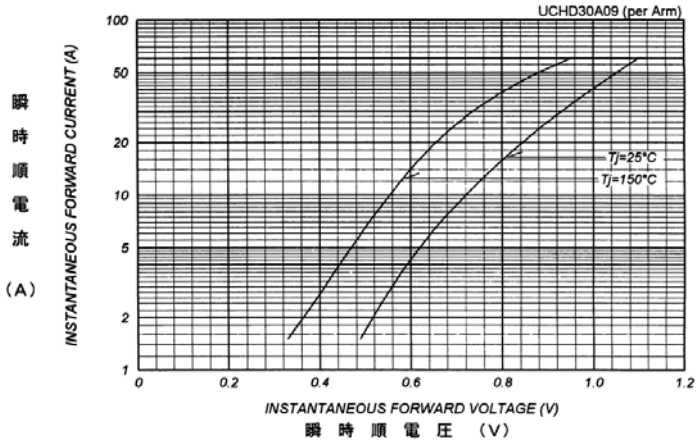
| 項目 Item | 記号 Symbol | 条件 Conditions | 最小値 min. | 代表値 typ. | 最大値 max. | 単位 Units |
|--------------------------------|-----------------|--|-------------|-------------|-------------|-------------|
| ピーク逆電流 Peak Reverse Current | I _{RM} | VR _M =VRRM, T _j =25°C, Per diode | — | — | 100 | μA |
| ピーク順電圧 Peak Forward Voltage | V _{FM} | IFM=15A, T _j =25°C, Per diode | — | — | 0.79 | V |
| 接合容量 Junction Capacitance | C _j | f=100kHz, VR=10V, Per diode | — | 370 | — | pF |
| 熱抵抗 Thermal Resistance | Rth(j-c) | 接合部・ケース間 Junction to Case | — | — | 1.5 | °C/W |

● 本資料の記載内容は製品改良などのため予告なく変更することがあります。
 ● The content specified herein is subject to change without notice.

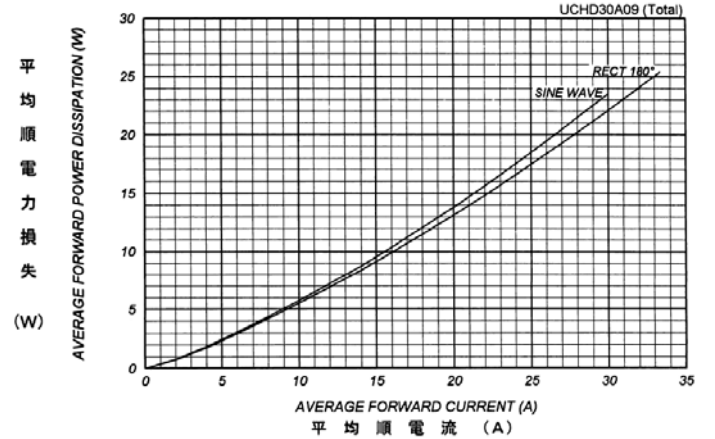
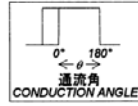
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■ 特性図 Characteristics Diagrams

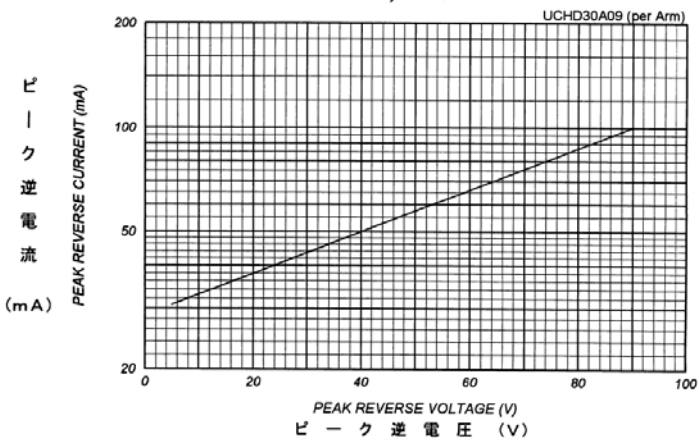
順電圧特性
FORWARD CURRENT VS. VOLTAGE



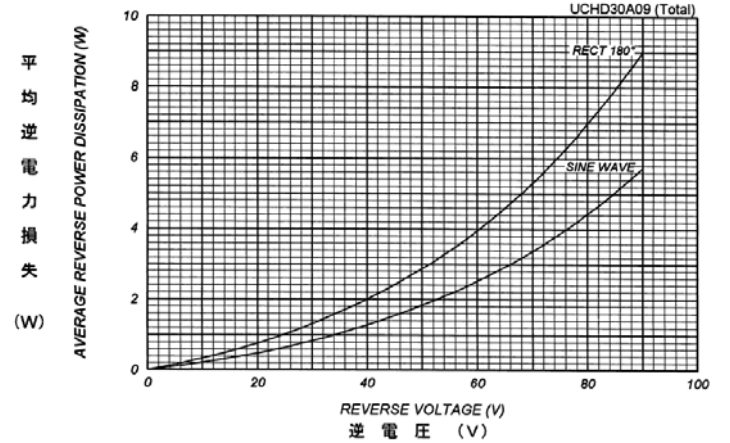
平均順電力損失特性
AVERAGE FORWARD POWER DISSIPATION



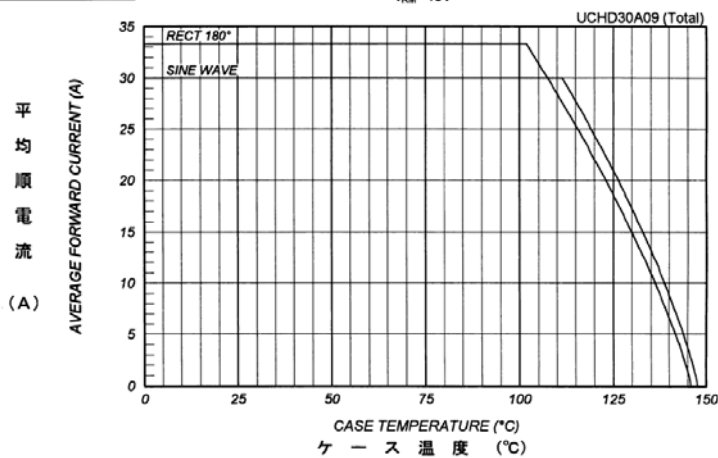
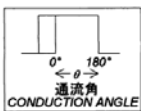
ピーク逆電流 - ピーク逆電圧特性
PEAK REVERSE CURRENT VS. PEAK REVERSE VOLTAGE



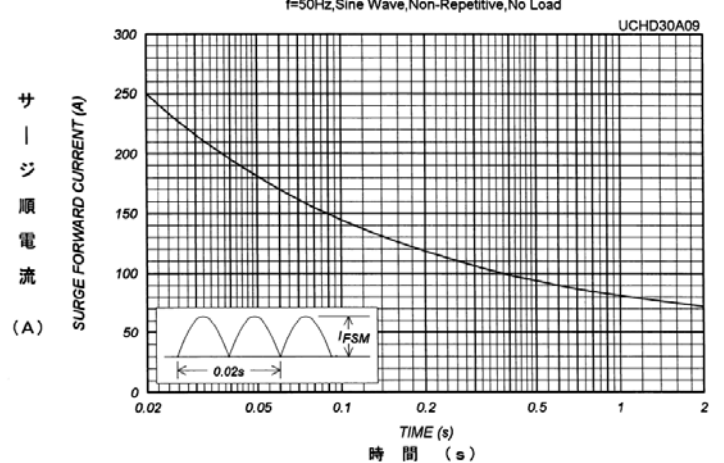
平均逆電力損失
AVERAGE REVERSE POWER DISSIPATION



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



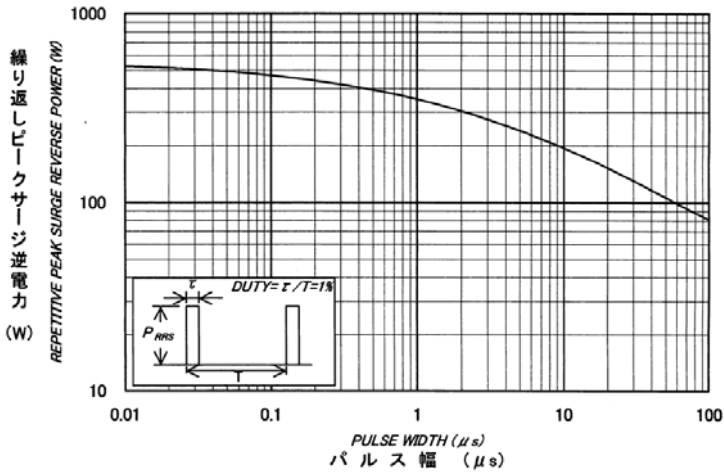
サージ順電流定格
SURGE CURRENT RATINGS



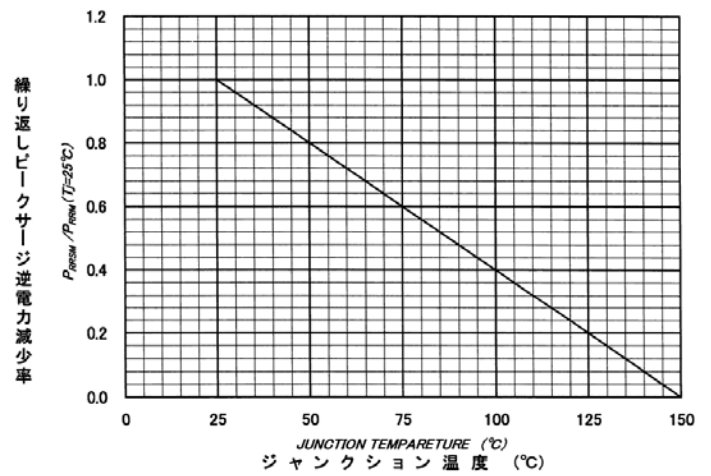
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■ 特性図 Characteristics Diagrams (Continued)

繰り返しピークサージ逆電力定格
 REPETITIVE PEAK SURGE REVERSE POWER RATINGS
 T_J=25°C, DUTY=1%, SQUARE WAVE



繰り返しピークサージ逆電力減少率
 REPETITIVE PEAK SURGE REVERSE POWER DERATING CURVE



接合容量特性
 JUNCTION CAPACITANCE VS. REVERSE VOLTAGE
 T_J=25°C, V_m=20mV_{RMS}, f=100kHz, Typical Value

