

DF20L60U

600V 20A

## 特長

- SMD
- 低ノイズ
- trr=35ns

## Feature

- SMD
- Low Noise
- trr=35ns

## 用途

- スイッチング電源
- アクティブフィルタ

## Main Use

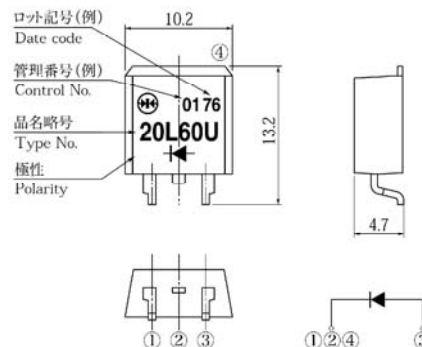
- Switching Regulator
- PFC(Power Factor Correction)

## ■外観図 OUTLINE

Package : STO-220

Unit:mm

Weight 1.5g (Typ)



外形図については新電元Webサイト又は〈半導体製品一覧表〉をご参照下さい。捺印表示については捺印仕様をご確認下さい。

For details of the outline dimensions, refer to our web site or Semiconductor Short Form Catalog. As for the marking, refer to the specification "Marking, Terminal Connection".

## ■定格表 RATINGS

●絶対最大定格 Absolute Maximum Ratings (指定のない場合  $T_c = 25^\circ\text{C}$ )

| 項目<br>Item                                | 記号<br>Symbol | 条件<br>Conditions                                                                                                                  | 品名<br>Type No. | DF20L60U | 単位<br>Unit       |
|-------------------------------------------|--------------|-----------------------------------------------------------------------------------------------------------------------------------|----------------|----------|------------------|
| 保存温度<br>Storage Temperature               | $T_{stg}$    |                                                                                                                                   |                | -55~150  | $^\circ\text{C}$ |
| 接合部温度<br>Operation Junction Temperature   | $T_j$        |                                                                                                                                   |                | 150      | $^\circ\text{C}$ |
| せん頭逆電圧<br>Maximum Reverse Voltage         | $V_{RM}$     |                                                                                                                                   |                | 600      | V                |
| 出力電流<br>Average Rectified Forward Current | $I_o$        | 50Hz 正弦波, 抵抗負荷, $T_c = 93^\circ\text{C}$<br>50Hz sine wave, Resistance load, $T_c = 93^\circ\text{C}$                             |                | 20       | A                |
| せん頭サージ順電流<br>Peak Surge Forward Current   | $I_{FSM}$    | 50Hz 正弦波, 非繰り返し1サイクルせん頭値, $T_j = 25^\circ\text{C}$<br>50Hz sine wave, Non-repetitive 1 cycle peak value, $T_j = 25^\circ\text{C}$ |                | 160      | A                |

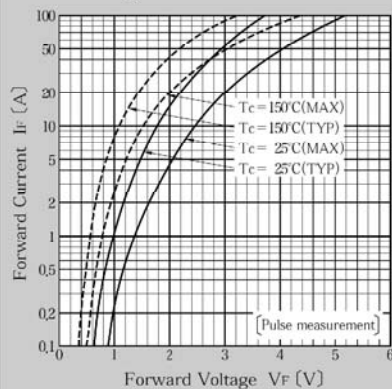
●電氣的・熱的特性 Electrical Characteristics (指定のない場合  $T_c = 25^\circ\text{C}$ )

|                                |               |                                                 |         |                    |
|--------------------------------|---------------|-------------------------------------------------|---------|--------------------|
| 順電圧<br>Forward Voltage         | $V_F$         | $I_F = 20\text{A}$ , パルス測定<br>Pulse measurement | MAX 3.0 | V                  |
| 逆電流<br>Reverse Current         | $I_R$         | $V_R = V_{RM}$ , パルス測定<br>Pulse measurement     | MAX 25  | $\mu\text{A}$      |
| 逆回復時間<br>Reverse Recovery Time | trr           | $I_F = 0.5\text{A}$ , $I_R = 1\text{A}$         | MAX 35  | ns                 |
| 接合容量<br>Junction Capacitance   | $C_j$         | $f = 1\text{MHz}$ , $V_R = 10\text{V}$          | TYP 105 | pF                 |
| 熱抵抗<br>Thermal Resistance      | $\theta_{jc}$ | 接合部・ケース間<br>Junction to case                    | MAX 0.9 | $^\circ\text{C/W}$ |

## ■特性図 CHARACTERISTIC DIAGRAMS

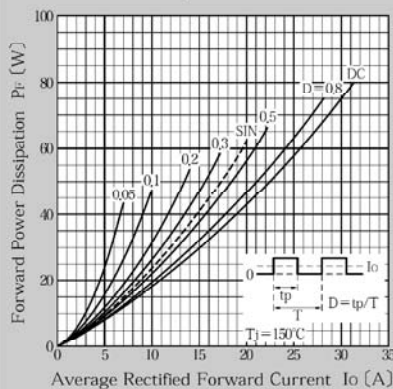
順方向特性

Forward Voltage



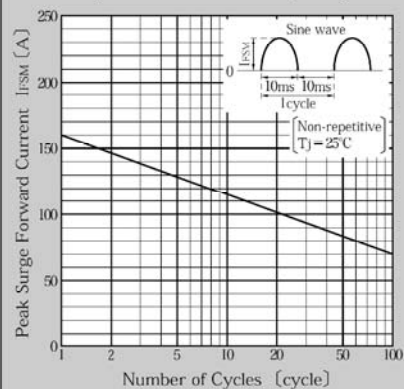
順電力損失曲線

Forward Power Dissipation



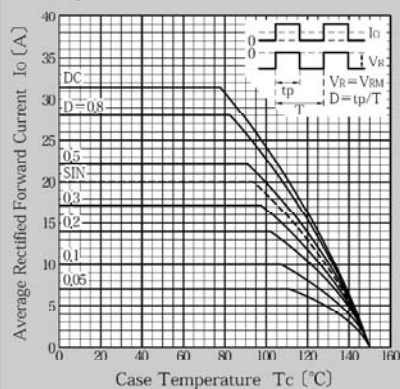
せん頭サージ順電流耐量

Peak Surge Forward Current Capability



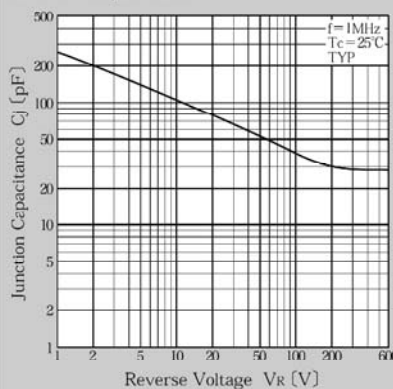
ディレーティングカーブ Tc-Io

Derating Curve Tc-Io



接合容量

Junction Capacitance



- \* Sine waveは50Hzで測定しています。
- \* 50Hz sine wave is used for measurements.
- \* 半導体製品の特性は一般的にバラツキを持っています。
- \* Typical is a statistical average of the device's ability.
- \* Semiconductor products generally have characteristic variation.
- \* Typical is a statistical average of the device's ability.