

## Applications

- High speed switching and rectification
- Switching mode power supply

## Features

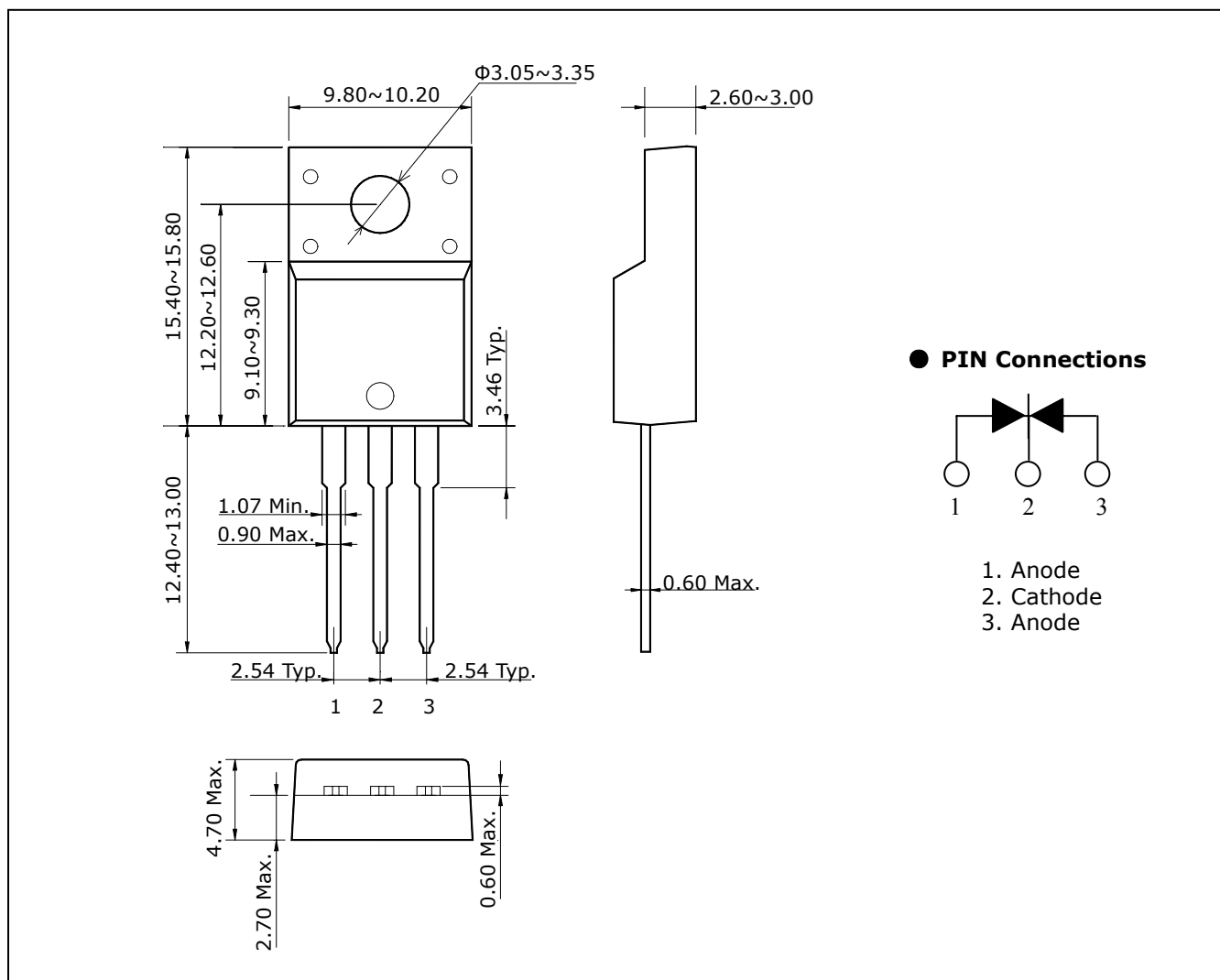
- Dual chip common cathode
- Low forward voltage & low reverse current
- Low switching loss

## Ordering Information

| Type No.   | Marking    | Package Code |
|------------|------------|--------------|
| SDB10150PI | SDB10150PI | TO-220F-3L   |

## Outline Dimensions

unit : mm



**Absolute Maximum Ratings** $T_C=25^{\circ}\text{C}$ 

| Characteristic                                                | Symbol    | Rating    | Unit               |
|---------------------------------------------------------------|-----------|-----------|--------------------|
| Repetitive peak reverse voltage                               | $V_{RRM}$ | 150       | V                  |
| Average rectified output current                              | $I_O$     | 10        | A                  |
| Peak forward surge current<br>(Non-repetitive 60Hz sine wave) | $I_{FSM}$ | 120       | A                  |
| Junction temperature                                          | $T_J$     | 150       | $^{\circ}\text{C}$ |
| Storage temperature range                                     | $T_{stg}$ | -55 ~ 150 | $^{\circ}\text{C}$ |

**Electrical Characteristics** $T_C=25^{\circ}\text{C}$ 

| Characteristic                  | Symbol            | Test Condition      | Min. | Typ. | Max. | Unit                 |
|---------------------------------|-------------------|---------------------|------|------|------|----------------------|
| Peak forward voltage            | $V_{FM}^{1), 2)}$ | $I_F=5\text{A}$     | -    | -    | 0.88 | V                    |
| Repetitive peak reverse current | $I_{RRM}^{1)}$    | $V_R=150\text{V}$   | -    | -    | 10   | $\mu\text{A}$        |
| Total thermal resistance        | $R_{th}$          | Junction to ambient | -    | -    | 62.5 | $^{\circ}\text{C/W}$ |
|                                 |                   | Junction to case    | -    | -    | 4.0  |                      |

1) per each unit

2) Pulse test :  $t_p \leq 380 \mu\text{s}$ , Duty cycle  $\leq 2\%$

## Electrical Characteristic Curves [per each unit]

Fig.1  $I_F - V_F$

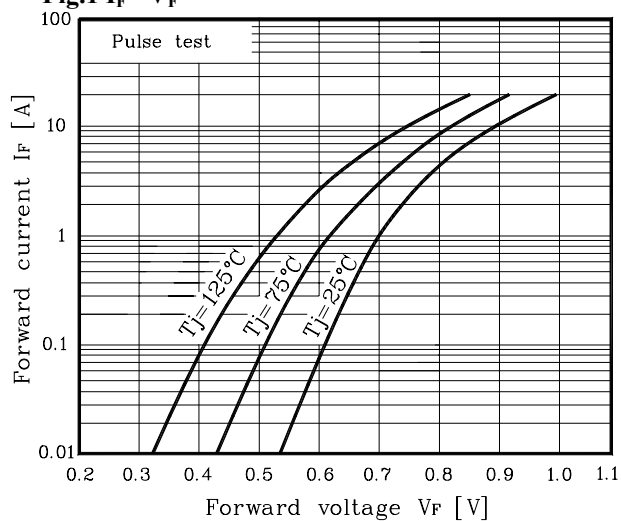


Fig. 2  $I_R - V_R$

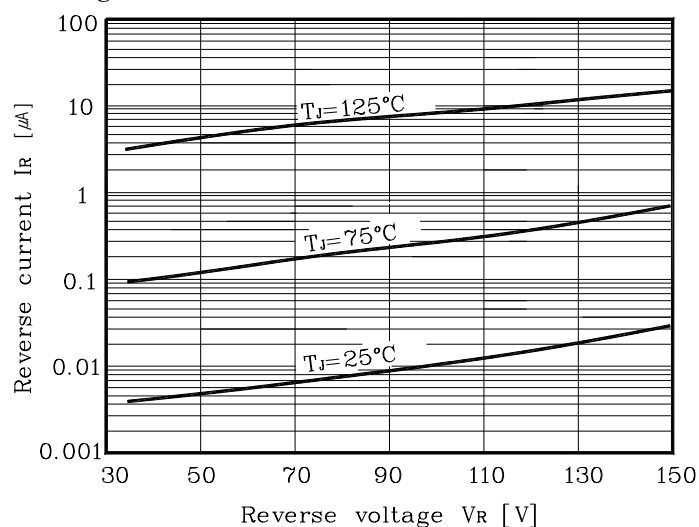


Fig. 3  $P_F - I_O$

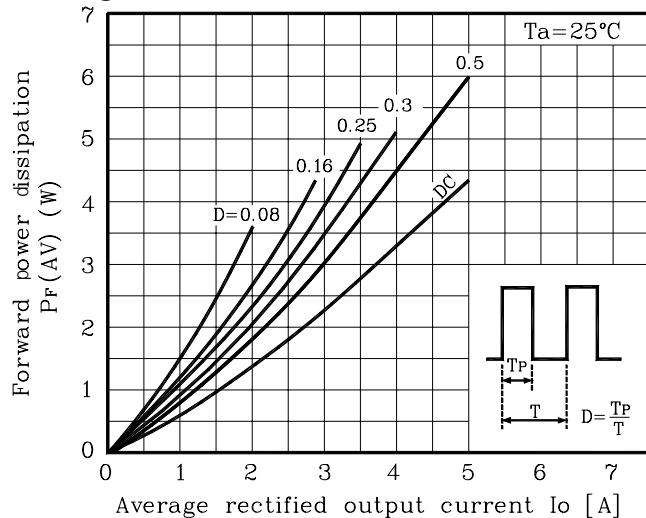


Fig. 4  $C_J - V_R$

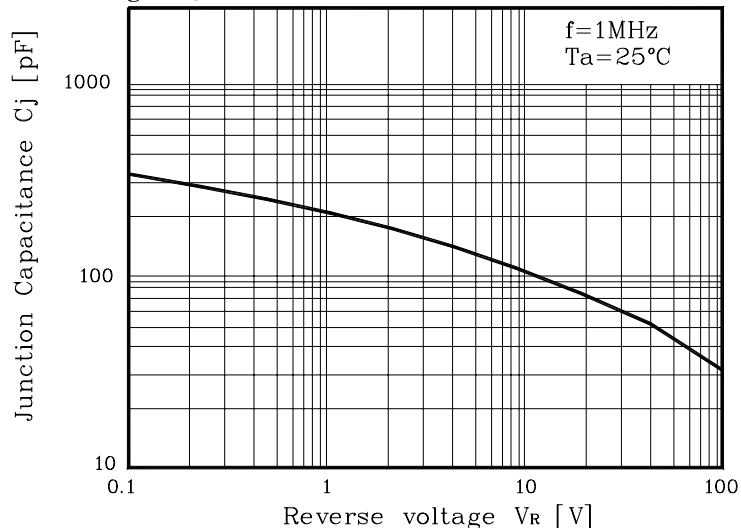


Fig. 5  $I_{FSM} - \text{Number of cycle}$

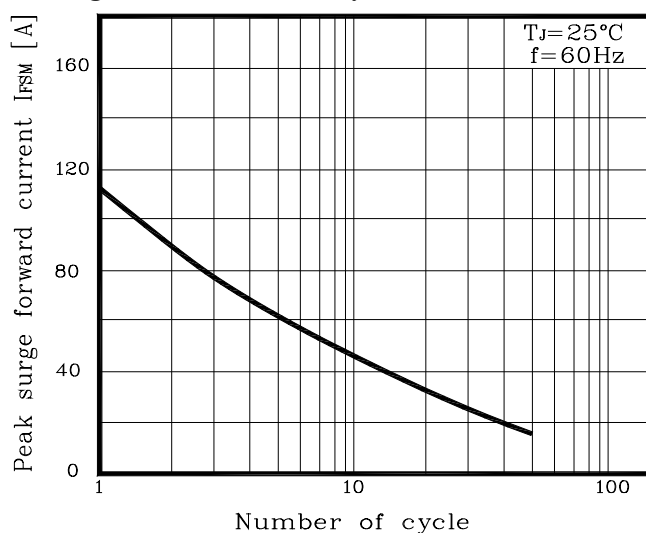
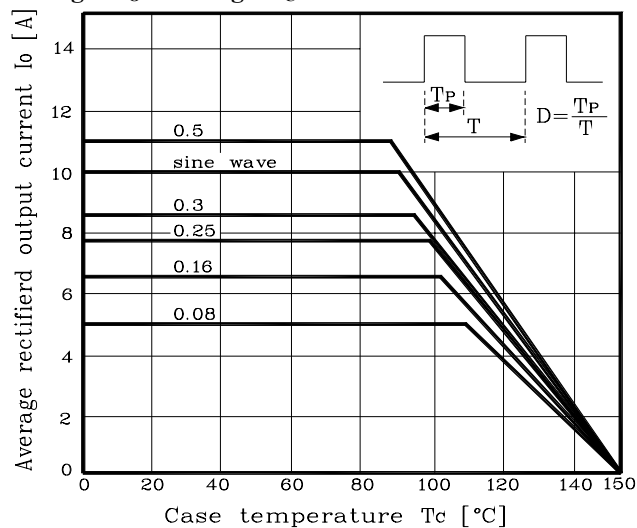


Fig. 6  $I_O$  derating -  $T_C$



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