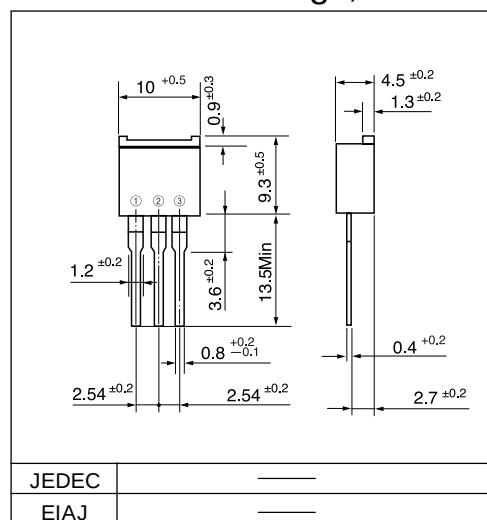


## LOW LOSS SUPER HIGH SPEED RECTIFIER

## Outline drawings, mm



## Features

- Low  $V_F$
- Super high speed switching
- High reliability by planer design

## Applications

- High speed power switching

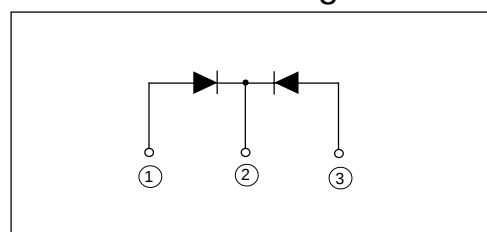
## Maximum ratings and characteristics

- Absolute maximum ratings

| Item                            | Symbol    | Conditions                                | Rating      | Unit        |
|---------------------------------|-----------|-------------------------------------------|-------------|-------------|
| Repetitive peak reverse voltage | $V_{RRM}$ |                                           | 300         | V           |
| Average output current          | $I_O$     | Square wave, duty=1/2, $T_c=105^{\circ}C$ | 5*          | A           |
| Surge current                   | $I_{FSM}$ | Sine wave 10ms                            | 25          | A           |
| Operating junction temperature  | $T_j$     |                                           | -40 to +125 | $^{\circ}C$ |
| Storage temperature             | $T_{stg}$ |                                           | -40 to +125 | $^{\circ}C$ |

\*Average forward current of centertap full wave connection

## Connection diagram

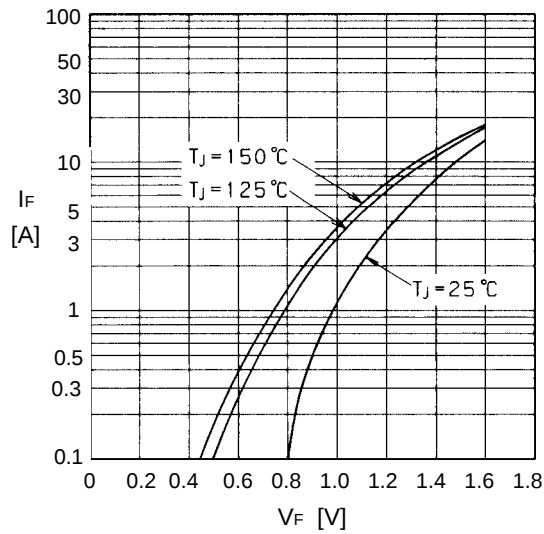


- Electrical characteristics ( $T_a=25^{\circ}C$  Unless otherwise specified )

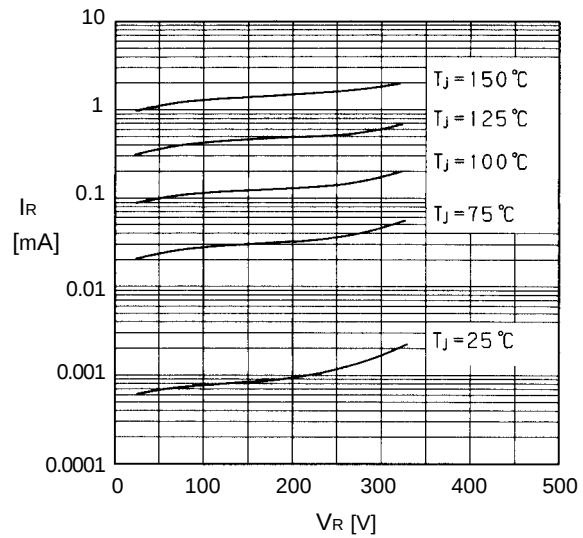
| Item                  | Symbol        | Conditions                                | Max. | Unit          |
|-----------------------|---------------|-------------------------------------------|------|---------------|
| Forward voltage drop  | $V_{FM}$      | $I_{FM}=2.5A$                             | 1.2  | V             |
| Reverse current       | $I_{RRM}$     | $V_R=V_{RRM}$                             | 100  | $\mu A$       |
| Reverse recovery time | $t_{rr}$      | $I_F=0.1A$ , $I_R=0.2A$ , $I_{rec}=0.05A$ | 35   | ns            |
| Thermal resistance    | $R_{th(j-c)}$ | Junction to case                          | 5.0  | $^{\circ}C/W$ |

## Characteristics

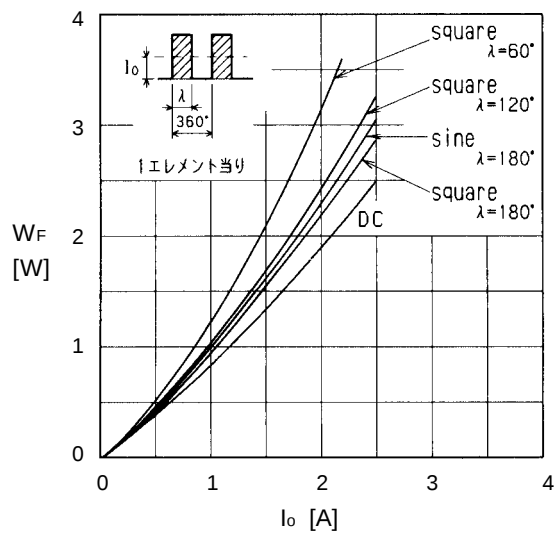
Forward characteristics



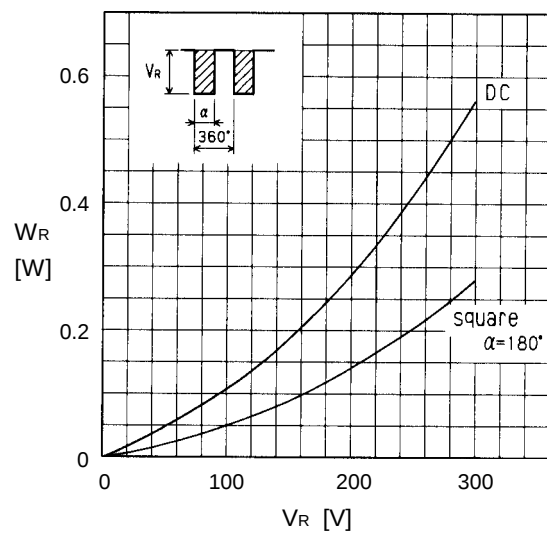
Reverse characteristics



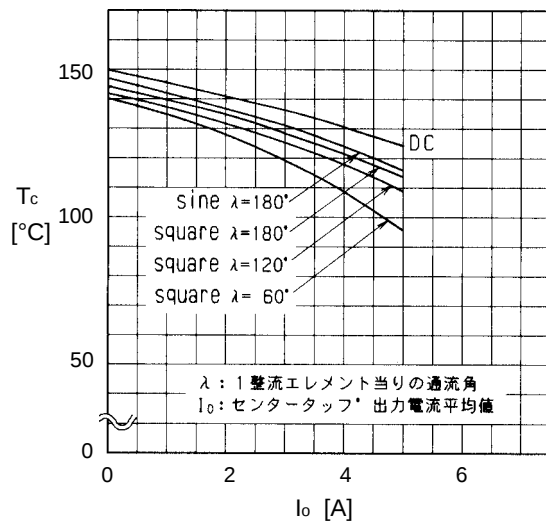
Forward power dissipation



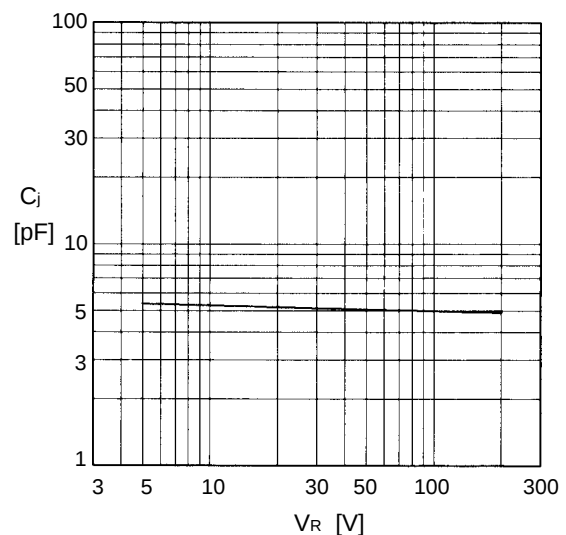
Reverse power dissipation



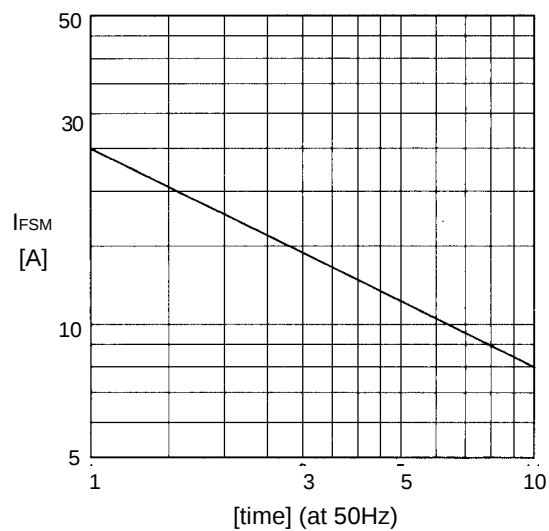
Output current-case temperature



Junction capacitance characteristics



Surge capability



Transient thermal impedance

