

## SCHOTTKY BARRIER DIODE

### 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       | $V_{RRM}$ |                                            | 30          | V           |
| Repetitive peak surge reverse voltage | $V_{RSM}$ | $t_w=500ns$ , duty=1/40                    | 30          | V           |
| Isolating voltage                     | $V_{iso}$ | Terminals to Case, AC. 1min.               | 1500        | V           |
| Average output current                | $I_o$     | duty=1/2, $T_c=99^{\circ}C$<br>Square wave | 25*         | A           |
| Suege current                         | $I_{FSM}$ | Sine wave 10ms                             | 120         | A           |
| Operating junction temperature        | $T_j$     |                                            | +150        | $^{\circ}C$ |
| Storage temperature                   | $T_{stg}$ |                                            | -40 to +150 | $^{\circ}C$ |

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

\* Out put current of centertap full wave connection.

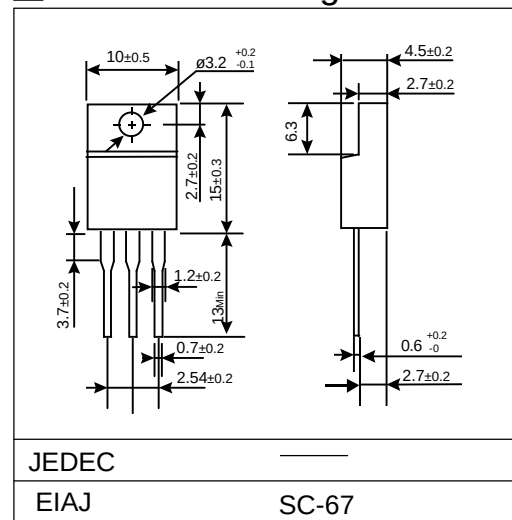
| Item                    | Symbol        | Conditions       | Max. | Unit          |
|-------------------------|---------------|------------------|------|---------------|
| Forward voltage drop ** | $V_F$         | $I_F=6.0A$       | 0.45 | V             |
| Reverse current **      | $I_R$         | $V_R=V_{RRM}$    | 15.0 | mA            |
| Thermal resistance      | $R_{th(j-c)}$ | Junction to case | 2.5  | $^{\circ}C/W$ |

\*\* Rating per element

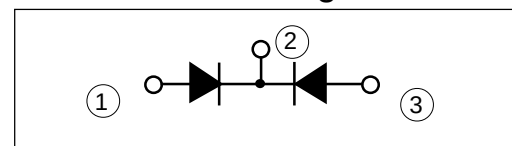
- Mechanical Characteristics

|                 |                    |            |       |
|-----------------|--------------------|------------|-------|
| Mounting torque | Recommended torque | 0.3 to 0.5 | N · m |
| Weight          |                    | 2.0        | g     |

### Outline Drawings

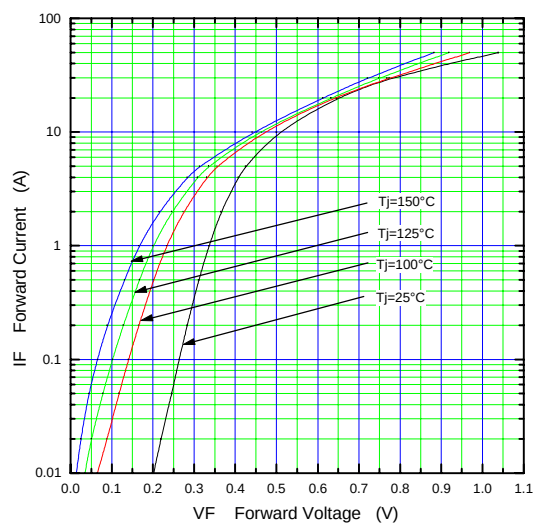


### Connection Diagram

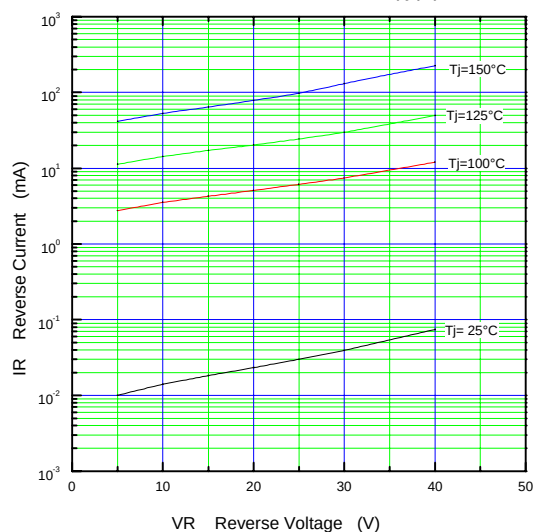


## Characteristics

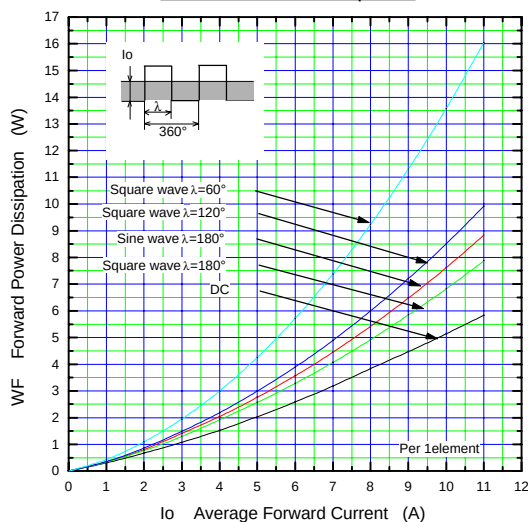
Forward Characteristic (typ.)



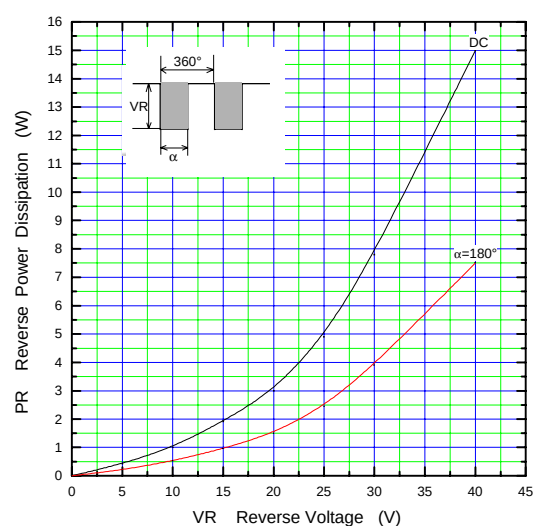
Reverse Characteristic (typ.)



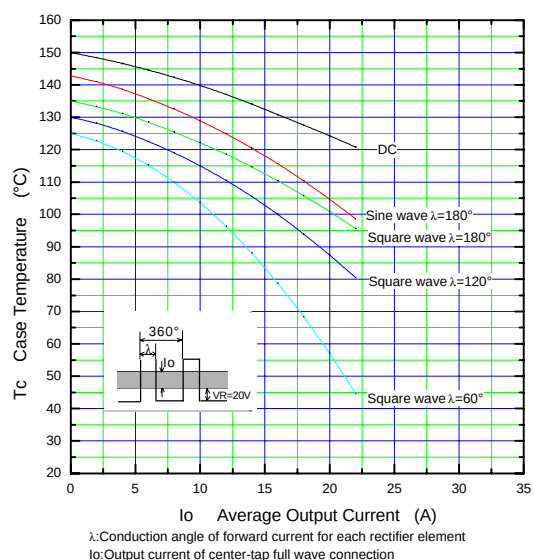
Forward Power Dissipation



Reverse Power Dissipation



Current Derating ( $I_o$ - $T_c$ )



Junction Capacitance Characteristic (typ.)

