

## Low IR Schottky barrier diode

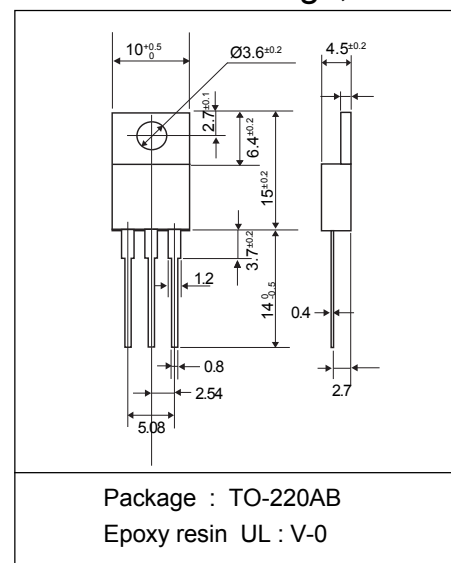
### Features

- Low IR
- Low  $V_F$
- Center tap connection

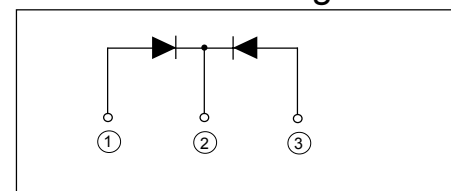
### Applications

- High frequency operation
- DC-DC converters
- AC adapter

### Outline drawings, mm



### Connection diagram



### Maximum ratings and characteristics

#### Maximum ratings

| Item                                           | Symbol    | Conditions                                       | Rating      | Unit             |
|------------------------------------------------|-----------|--------------------------------------------------|-------------|------------------|
| Repetitive peak surge reverse voltage          | $V_{RSM}$ | $t_w=500\text{ns}$ , duty=1/40                   | 60          | V                |
| Repetitive peak reverse voltage                | $V_{RRM}$ |                                                  | 60          | V                |
| Isolating voltage                              | $V_{iso}$ | Terminals-to-Case, AC, 1min.                     | 1500        | V                |
| Average output current                         | $I_o$     | Square wave, duty=1/2<br>$T_c=122^\circ\text{C}$ | 20 *        | A                |
| Non-repetitive surge current                   | $I_{FSM}$ | Sine wave 10ms                                   | 145         | A                |
| non-repetitive reverse surge power dissipation | $PRM$     | $t_w=10\mu\text{s}$ , $T_j=25^\circ\text{C}$     | 660         | W                |
| Operating junction temperature                 | $T_j$     |                                                  | +150        | $^\circ\text{C}$ |
| Storage temperature                            | $T_{stg}$ |                                                  | -40 to +150 | $^\circ\text{C}$ |

\* Out put current of center tap full wave connection

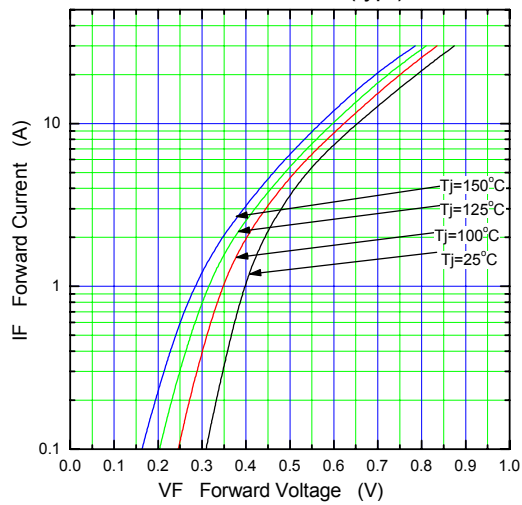
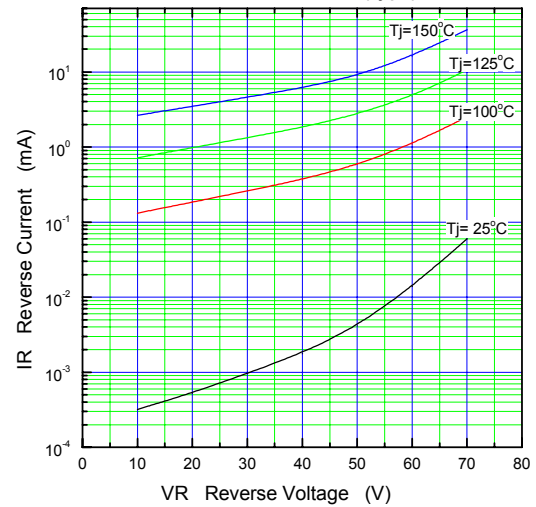
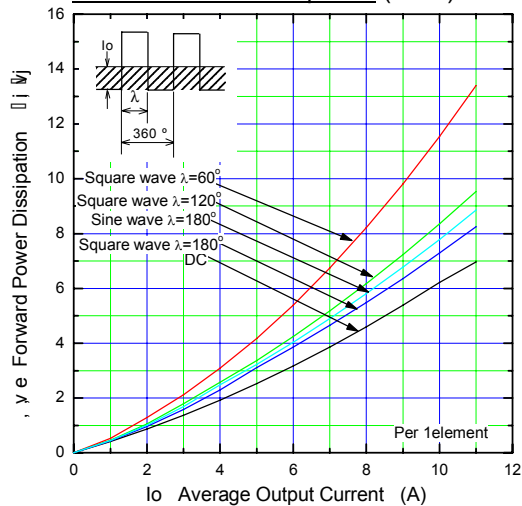
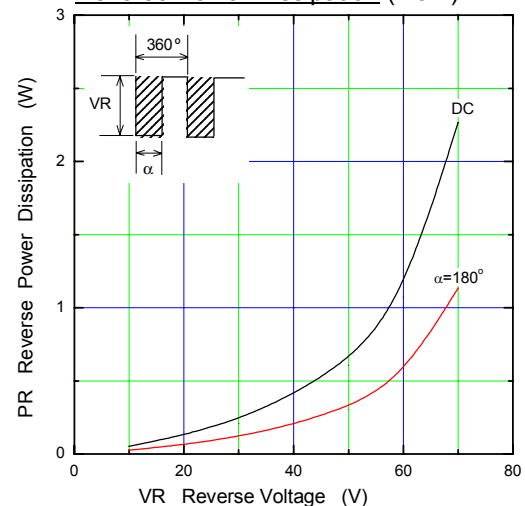
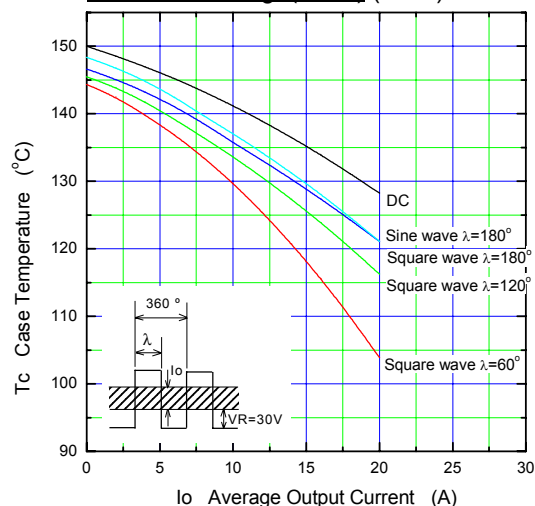
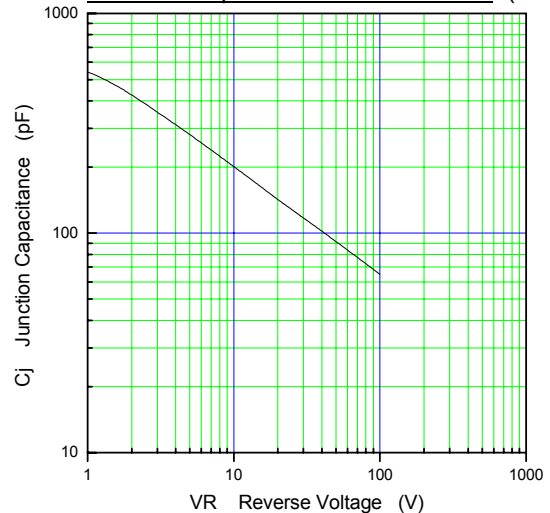
#### Electrical characteristics (at $T_a=25^\circ\text{C}$ Unless otherwise specified )

| Item               | Symbol        | Conditions       | Max. | Unit               |
|--------------------|---------------|------------------|------|--------------------|
| Forward voltage ** | $V_F$         | $I_F=10\text{A}$ | 0.74 | V                  |
| Reverse current ** | $I_R$         | $V_R=60\text{V}$ | 175  | $\mu\text{A}$      |
| Thermal resistance | $R_{th(j-c)}$ | Junction to case | 1.75 | $^\circ\text{C/W}$ |

\*\*Rating per element

#### Mechanical characteristics

|                  |                    |            |     |
|------------------|--------------------|------------|-----|
| Mounting torque  | Recommended torque | 0.3 to 0.5 | N·m |
| Approximate mass |                    | 2          | g   |

**■ Characteristics****Forward Characteristic (typ.)****Reverse Characteristic (typ.)****Forward Power Dissipation (max.)****Reverse Power Dissipation (max.)****Current Derating ( $I_o$ - $T_c$ ) (max.)****Junction Capacitance Characteristic (max.)**

$\lambda$ : Conduction angle of forward current for each rectifier element  
 $I_o$ : Output current of center-tap full wave connection

