

# MS865C15 (150V, 20A)

FUJI Diode

## Low IR Schottky Barrier Diode

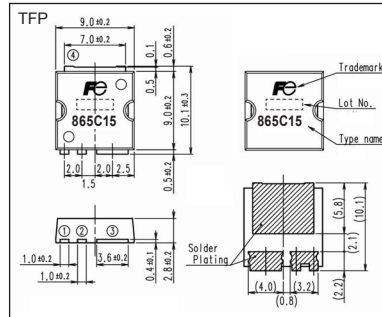
### ■ Features

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

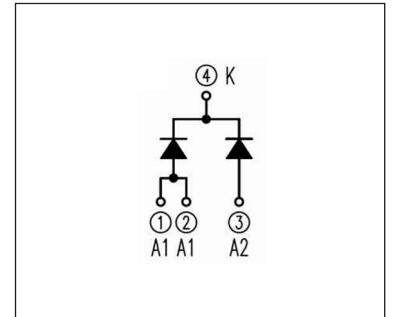
### ■ Applications

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

### ■ Outline Drawings [mm]



### ■ Connection diagram



### ■ Maximum Ratings and Characteristics

#### ● Maximum ratings (at Ta=25°C Unless otherwise specified)

| Item                            | Symbols   | Conditions   | Ratings     | Units            |
|---------------------------------|-----------|--|-------------|------------------|
| Repetitive peak reverse voltage | $V_{RRM}$ |  | 150         | V                |
| Average output current          | $I_O$     | Square wave duty =1/2<br>$T_c = 115^\circ\text{C}$ | 20 *        | A                |
| Non-repetitive surge current ** | $I_{FSM}$ | Sine wave, 10ms 1shot                              | 150         | A                |
| 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.

\*\*Rating per element

#### ● Electrical characteristics (at Ta=25°C Unless otherwise specified)

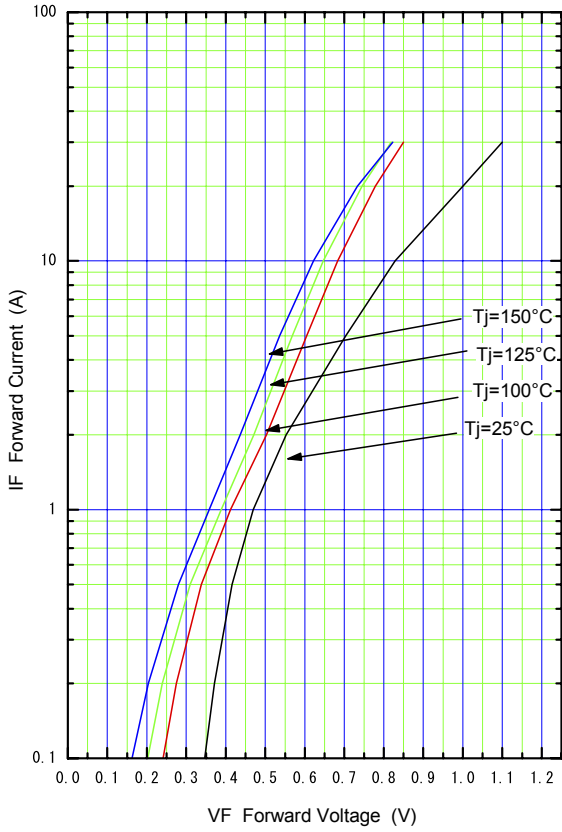
| Item               | Symbols       | Conditions          | Maximum | Units              |
|--------------------|---------------|---------------------|---------|--------------------|
| Forward voltage*** | $V_F$         | $I_F = 10\text{ A}$ | 0.90    | V                  |
| Reverse current*** | $I_R$         | $V_R = V_{RRM}$     | 150     | $\mu\text{A}$      |
| Thermal resistance | $R_{th(j-c)}$ | Junction to case    | 1.25    | $^\circ\text{C/W}$ |

\*\*\*Rating per element

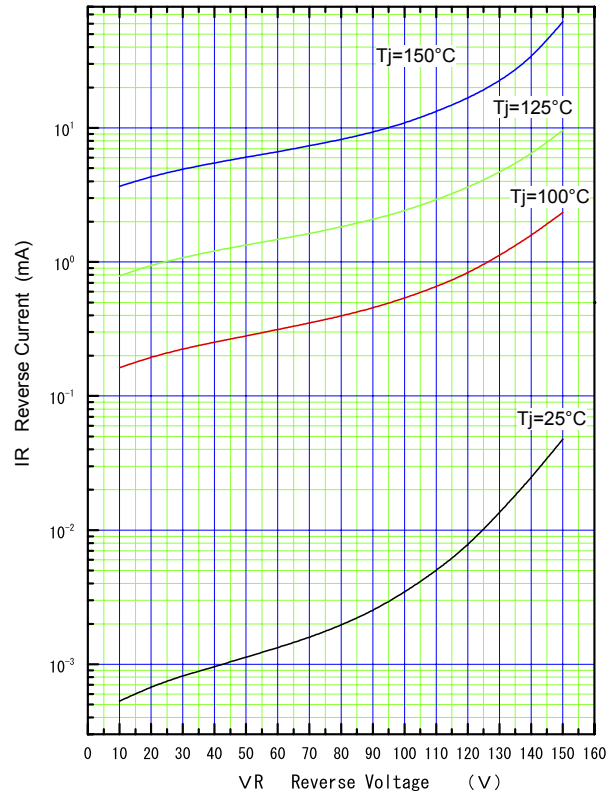
#### ● Mechanical characteristics

| Item             | Conditions | Ratings | Units |
|------------------|------------|---------|-------|
| Approximate mass |            | 0.8     | g     |

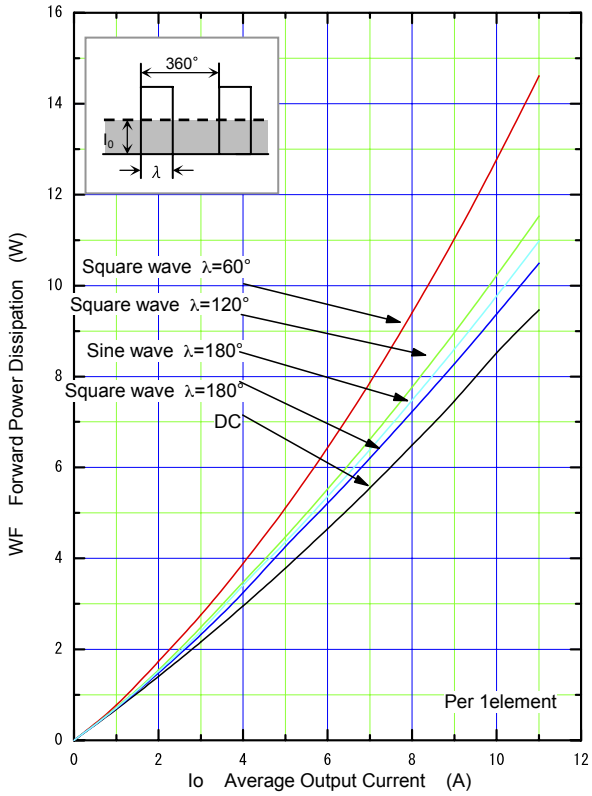
Forward Characteristic (typ.)



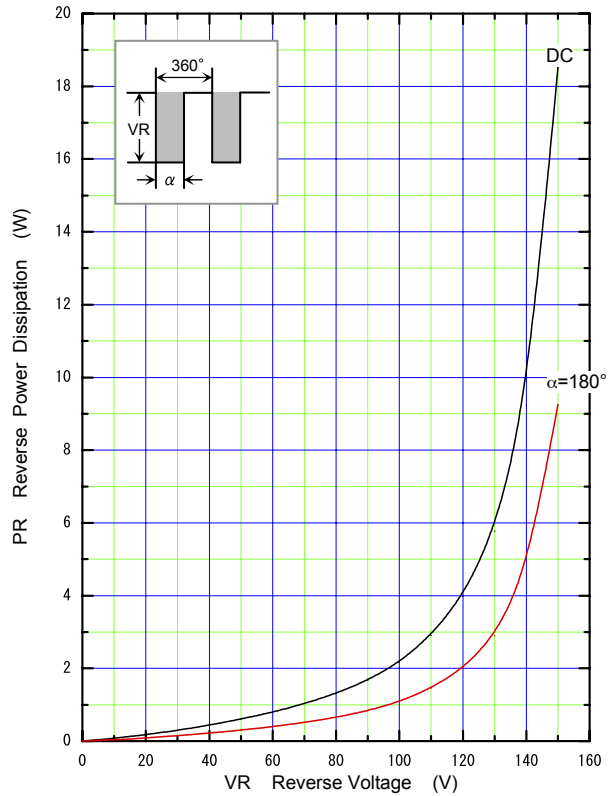
Reverse Characteristic (typ.)



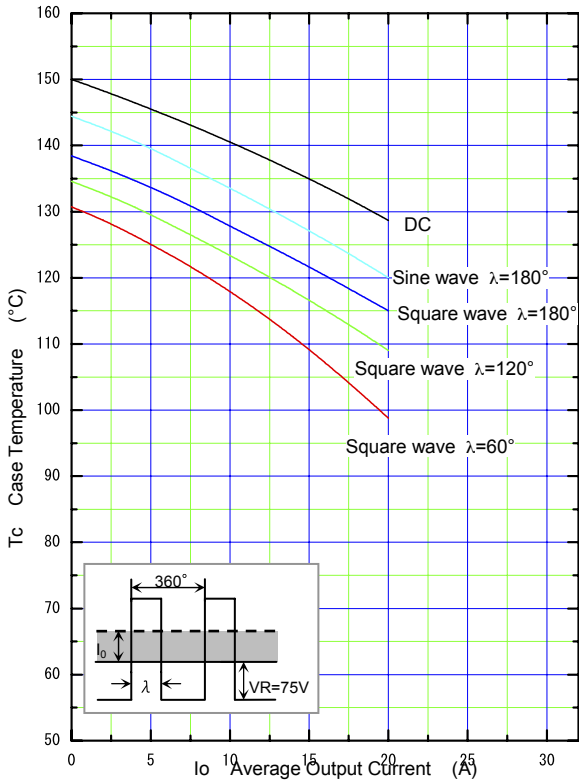
Forward Power Dissipation (max.)



Reverse Power Dissipation (max.)

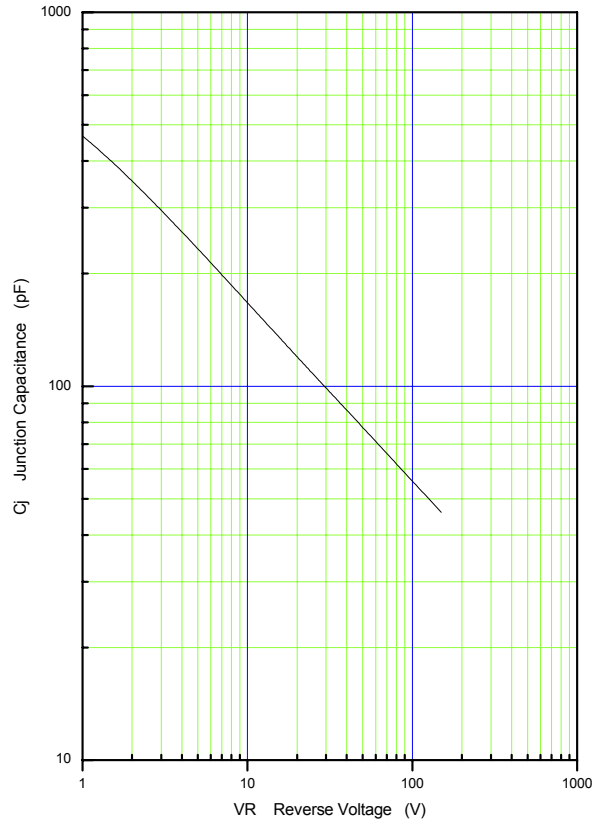


Current Derating (I<sub>o</sub>-T<sub>c</sub>) (max.)

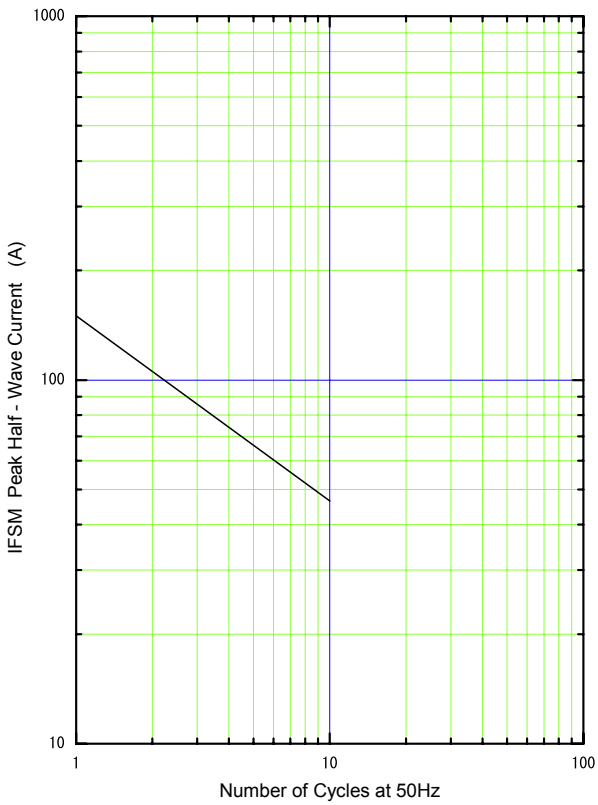


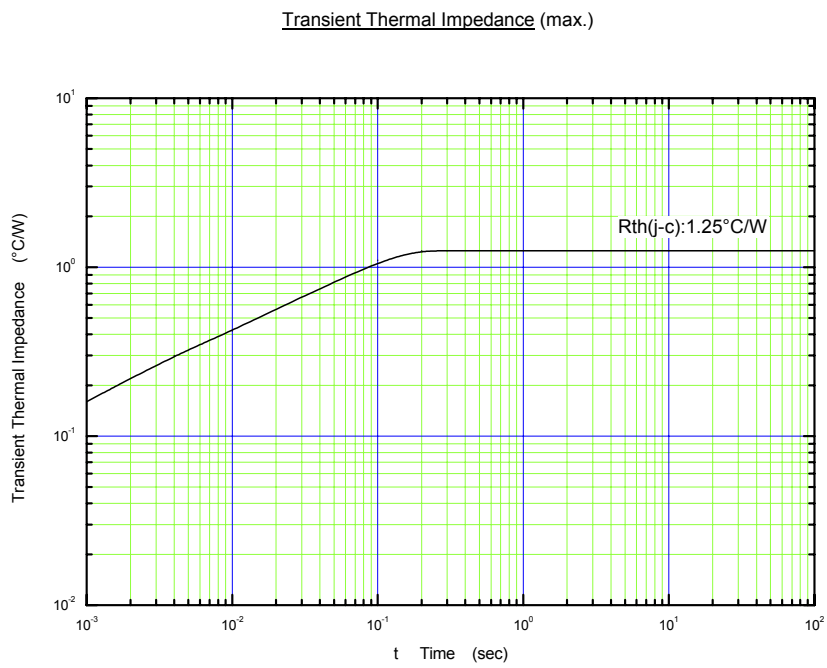
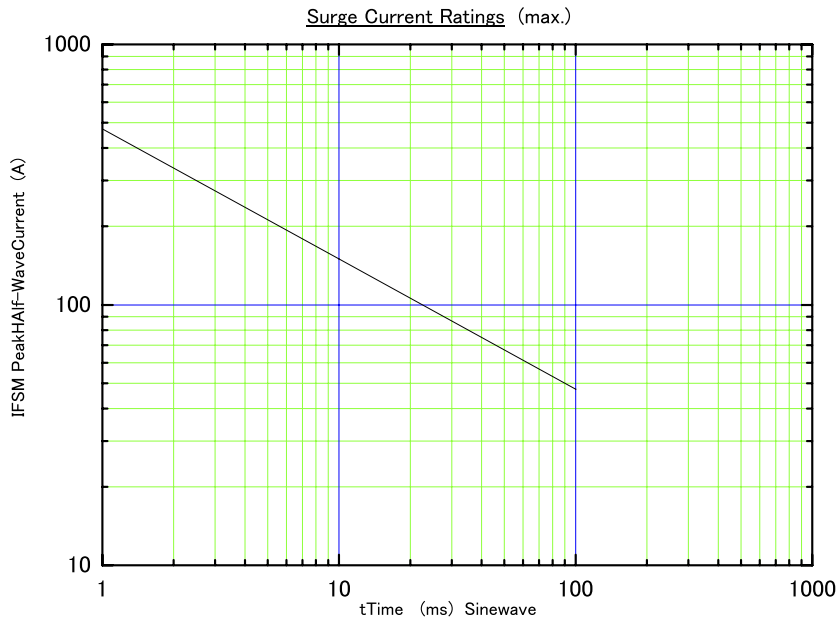
λ: Conduction angle of forward current for each rectifier element  
 I<sub>o</sub>: Output current of center-tap full wave connection

Junction Capacitance Characteristic (max.)



Surge Capability (max.)





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