

# YG868C15R (30A)

(150V / 30A)

[0401]

## High Voltage Schottky barrier diode

### Major characteristics

| Characteristics | YG868C15R | Units | Condition                   |
|-----------------|-----------|-------|-----------------------------|
| $V_{RRM}$       | 150       | V     |                             |
| $V_F$           | 0.90      | V     | $T_c=25^\circ\text{C MAX.}$ |
| $I_o$           | 30        | A     |                             |

### Features

- Low  $V_F$
- High Voltage
- Center tap connection

### Applications

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

### Maximum ratings and characteristics

- Absolute maximum ratings (at  $T_c=25^\circ\text{C}$  Unless otherwise specified )

| Item                                  | Symbol    | Conditions                                       | Rating      | Unit             |
|---------------------------------------|-----------|--|-------------|------------------|
| Repetitive peak surge reverse voltage | $V_{RSM}$ | $t_w=500\text{ns}$ , duty=1/40                   | 150         | V                |
| Repetitive peak reverse voltage       | $V_{RRM}$ |  | 150         | V                |
| Isolating voltage                     | $V_{iso}$ | Terminals-to-Case, AC.1min                       | 1500        | V                |
| Average output current                | $I_o$     | Square wave, duty=1/2<br>$T_c=112^\circ\text{C}$ | 30 *        | A                |
| Non-repetitive surge current **       | $I_{FSM}$ | Sine wave<br>10ms 1shot                          | 225         | 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

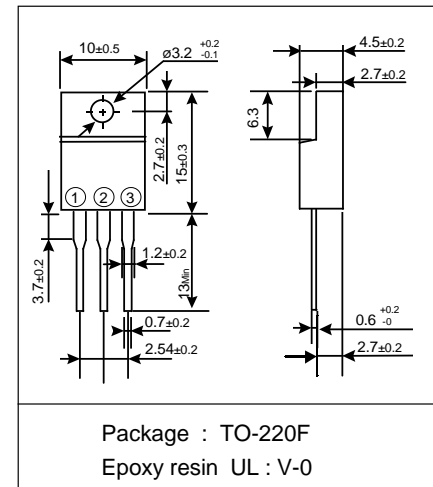
- Electrical characteristics (at  $T_c=25^\circ\text{C}$  Unless otherwise specified )

| Item                 | Symbol        | Conditions          | Max. | Unit               |
|----------------------|---------------|---------------------|------|--------------------|
| Forward voltage drop | $V_F$         | $I_{FM}=15\text{A}$ | 0.90 | V                  |
| Reverse current      | $I_R$         | $V_R=V_{RRM}$       | 200  | $\mu\text{A}$      |
| Thermal resistance   | $R_{th(j-c)}$ | Junction to case    | 1.2  | $^\circ\text{C/W}$ |

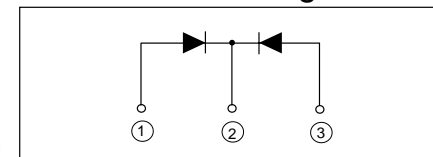
- Mechanical characteristics

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

### Outline drawings, mm

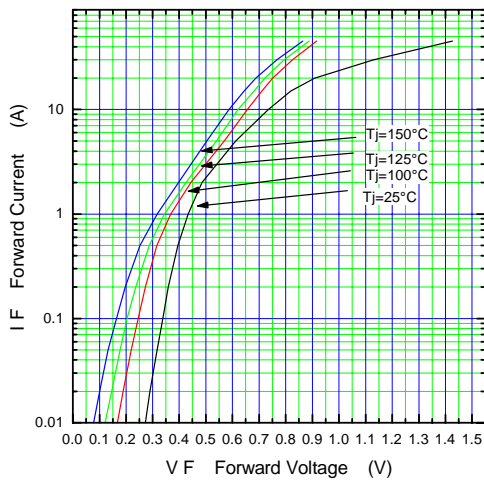


### Connection diagram

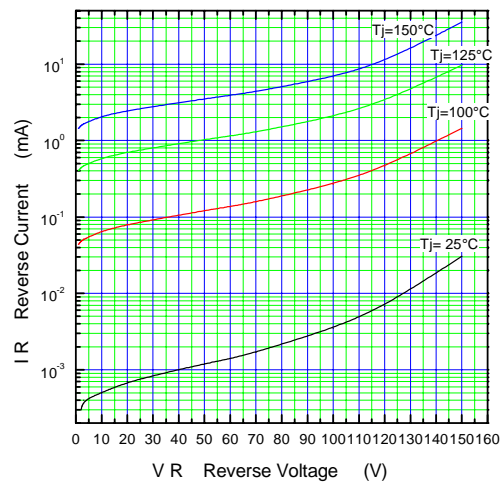


Characteristics

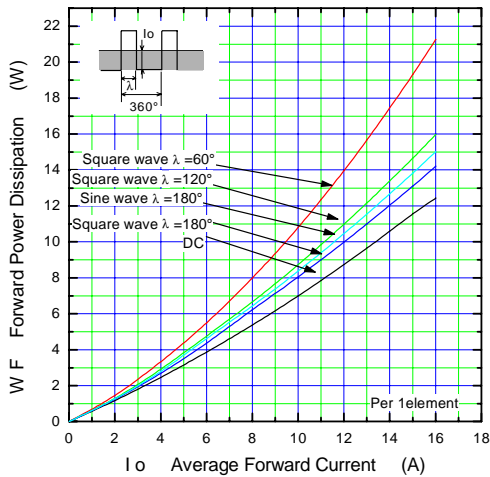
Forward Characteristic (typ.)



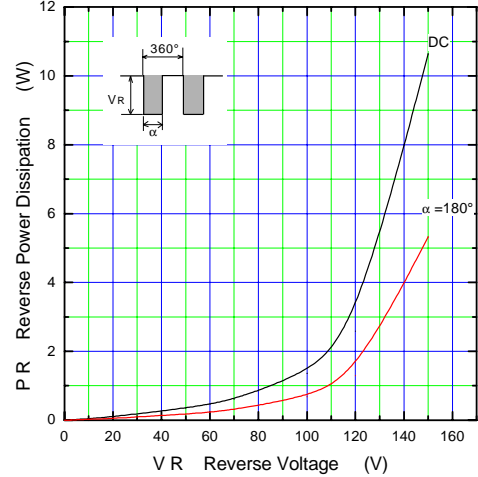
Reverse Characteristic (typ.)



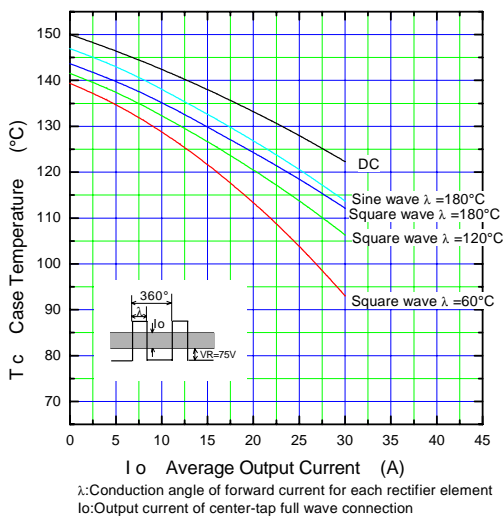
Forward Power Dissipation (max.)



Reverse Power Dissipation (max.)



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



Junction Capacitance Characteristic (max.)

