

# YG901C2R

L L D (200V / 5A TO-220F15)

## LOW LOSS SUPER HIGH SPEED 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       | $V_{RRM}$ |                                                    | 200         | V                  |
| Repetitive peak surge reverse voltage | $V_{RSM}$ |                                                    | 200         | V                  |
| Isolation voltage                     | $V_{iso}$ | Terminals to Case,<br>AC, 1min.                    | 1500        | V                  |
| Average output current                | $I_o$     | duty=1/2, $T_c=120^{\circ}\text{C}$<br>Square wave | 5*          | A                  |
| Surge current                         | $I_{FSM}$ | Sine wave 10ms                                     | 25          | A                  |
| Operating junction temperature        | $T_j$     |                                                    | -40 to +150 | $^{\circ}\text{C}$ |
| Storage temperature                   | $T_{stg}$ |                                                    | -40 to +150 | $^{\circ}\text{C}$ |

\* Out put current of centertap full wave connection.

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

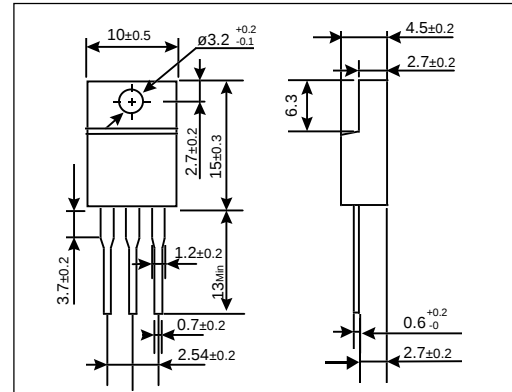
| Item                    | Symbol        | Conditions                                               | Max. | Unit                 |
|-------------------------|---------------|----------------------------------------------------------|------|----------------------|
| Forward voltage drop ** | $V_F$         | $I_F=2.5\text{A}$                                        | 0.95 | V                    |
| Reverse current **      | $I_R$         | $V_R=V_{RRM}$                                            | 100  | $\mu\text{A}$        |
| Reverse recovery time   | $t_{rr}$      | $I_F=0.1\text{A}, I_R=0.2\text{A}, I_{rec}=0.05\text{A}$ | 35   | ns                   |
| Thermal resistance      | $R_{th(j-c)}$ | Junction to case                                         | 3.5  | $^{\circ}\text{C/W}$ |

\*\* Rating per element

- Mechanical Characteristics

|                 |                    |            |       |
|-----------------|--------------------|------------|-------|
| Mounting torque | Recommended torque | 0.3 to 0.5 | N · m |
| Weight          |                    | 2.3        | g     |

### Outline Drawings

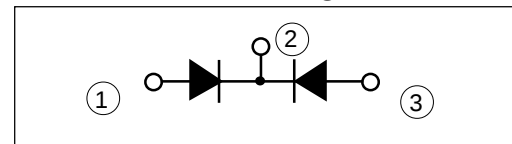


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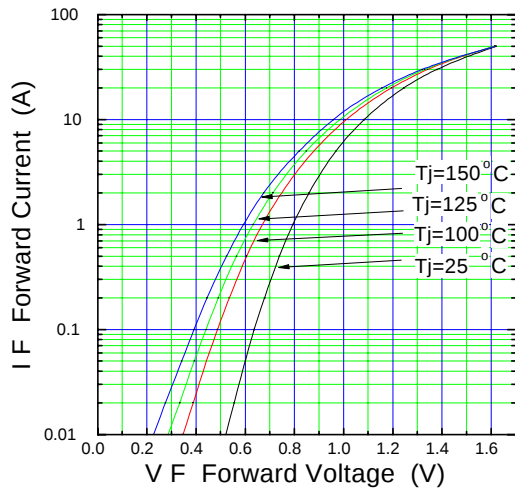
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### Connection Diagram

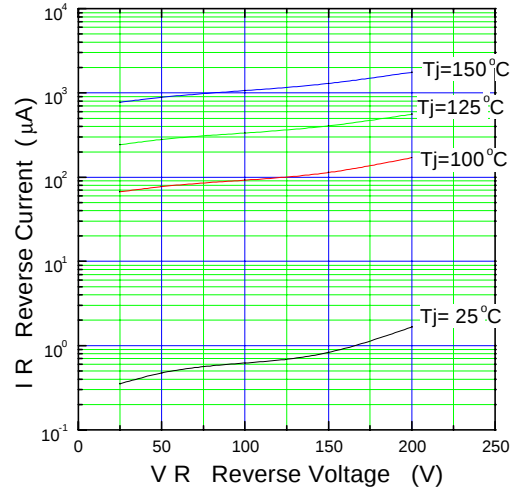


## Characteristics

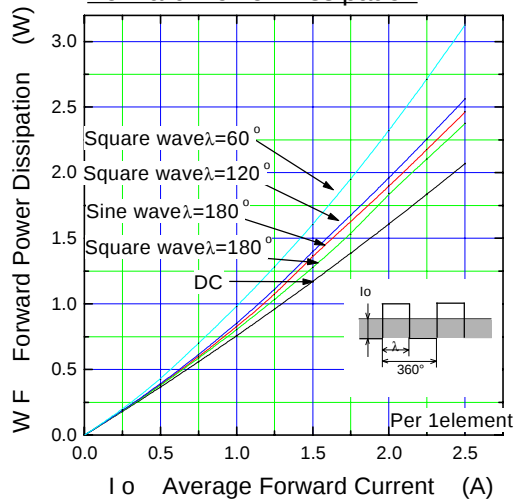
Forward Characteristic (typ.)



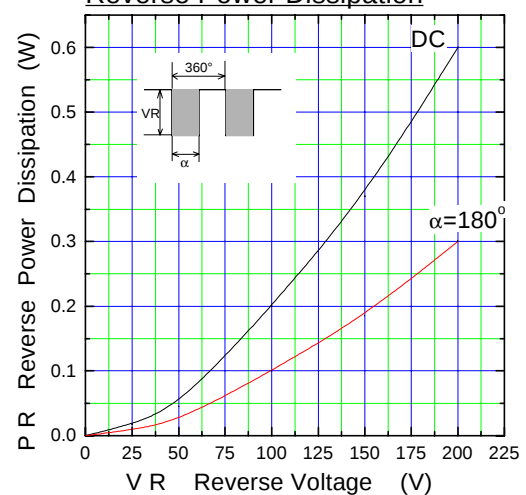
Reverse Characteristic (typ.)



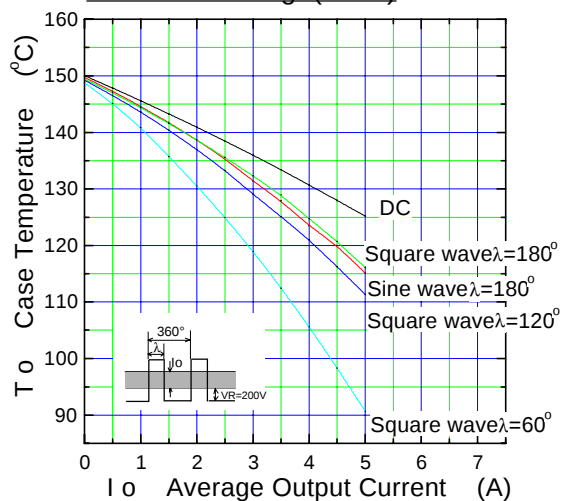
Forward Power Dissipation



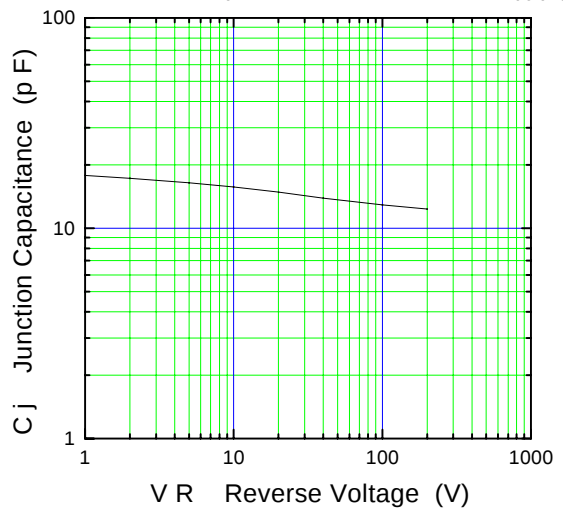
Reverse Power Dissipation



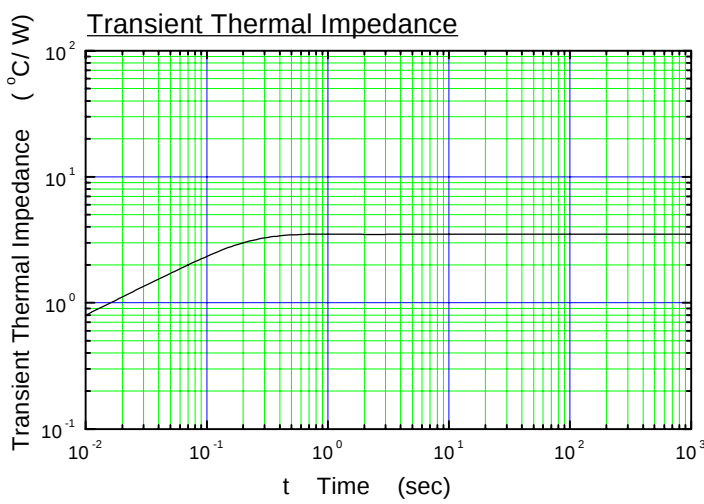
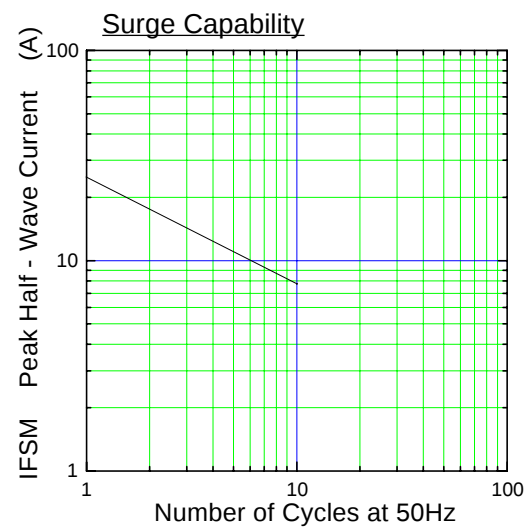
Current Derating ( $I_o$ - $T_c$ )



Junction Capacitance Characteristic (typ.)



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



**DERATING**

