

YG885C02R

(20V / 30A TO-220F15)

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} | | 20 | V |
| Repetitive peak surge reverse voltage | V_{RSM} | $t_w=500ns$, duty=1/40 | 20 | V |
| Isolating voltage | V_{iso} | Terminals to Case, AC, 1min. | 1500 | V |
| Average output current | I_o | duty=1/2, $T_c=81^\circ C$ Square wave | 30* | 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 | $^\circ C$ |

* Out put current of centertap full wave connection.

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

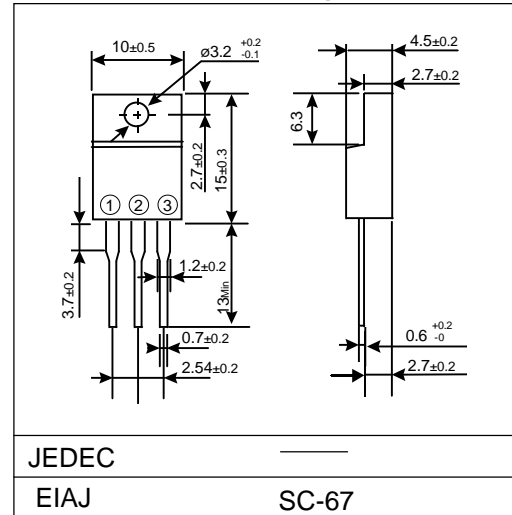
| Item | Symbol | Conditions | Max. | Unit |
|-------------------------|---------------|------------------|------|--------------|
| Forward voltage drop ** | V_F | $I_F=8.0A$ | 0.39 | V |
| Reverse current ** | I_R | $V_R=V_{RRM}$ | 30.0 | mA |
| Thermal resistance | $R_{th(j-c)}$ | Junction to case | 2.5 | $^\circ C/W$ |

** Rating per element

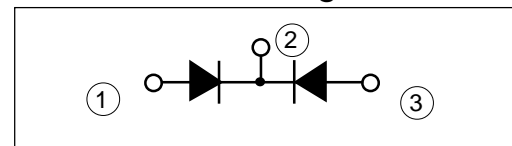
- Mechanical Characteristics

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

Outline Drawings

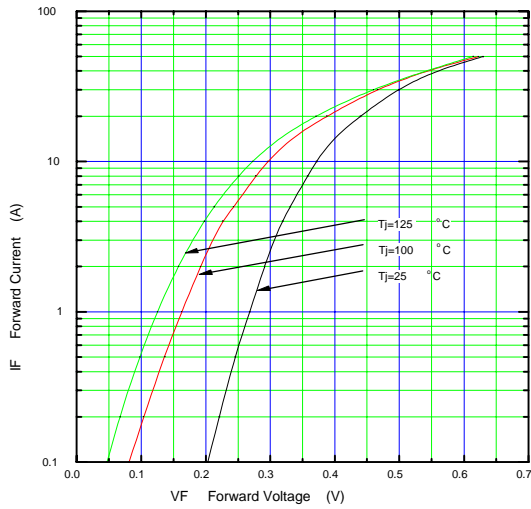


Connection Diagram

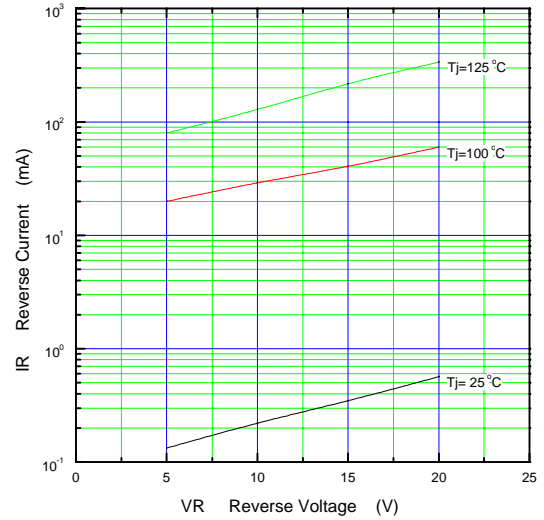


Characteristics

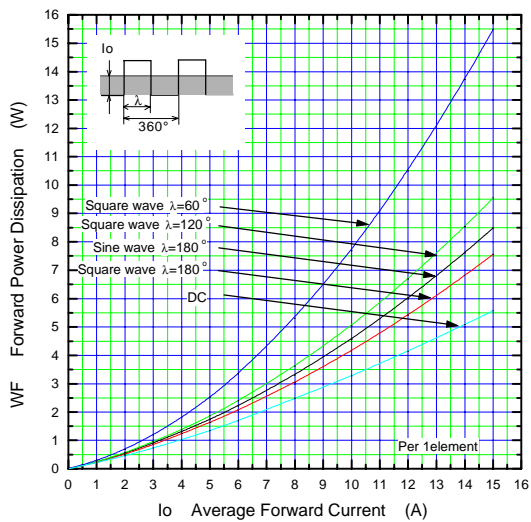
Forward characteristic (typ.)



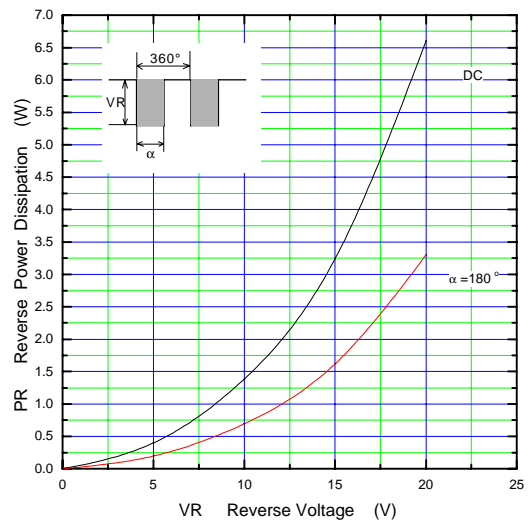
Reverse Characteristic (typ.)



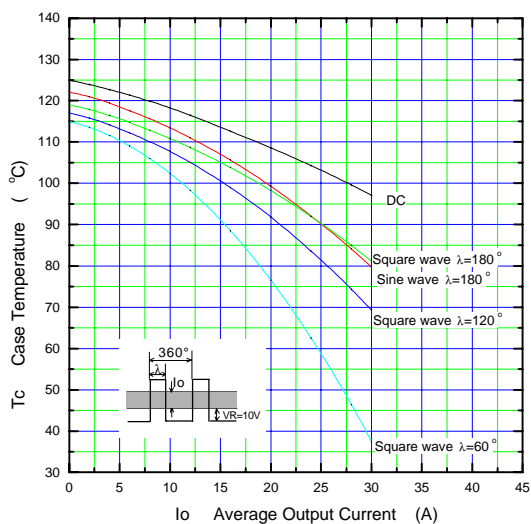
Forward Power Dissipation



Reverse Power Dissipation

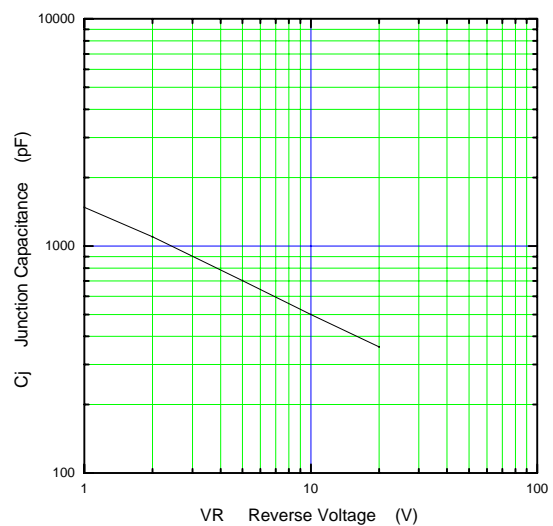


Current Derating (I_o - T_c)

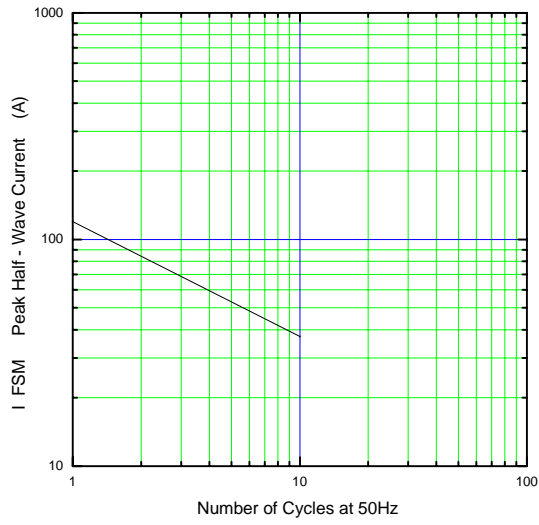


λ : Conduction angle of forward current for each rectifier element
 I_o : Output current of center-tap full wave connection

Junction Capacitance Characteristic (typ.)



Surge Capability



Transient Thermal Impedance

