

# YG831C04R

(40V / 6A 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	$V_{RRM}$		40	V
Repetitive peak surge reverse voltage	$V_{RSM}$	$t_w=500ns$ , $duty=1/40$	40	V
Isolating voltage	$V_{iso}$	Terminals to Case, AC, 1min.	1500	V
Average output current	$I_o$	$duty=1/2$ , $T_c=122^\circ C$ Square wave	6*	A
Suege current	$I_{FSM}$	Sine wave 10ms	80	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)

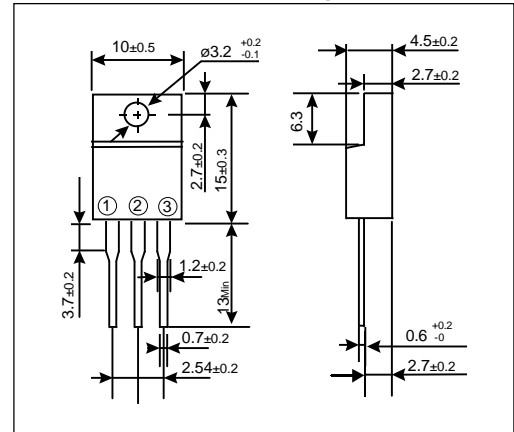
Item	Symbol	Conditions	Max.	Unit
Forward voltage drop **	$V_F$	$I_F=2.0A$	0.53	V
Reverse current **	$I_R$	$V_R=V_{RRM}$	2.0	mA
Thermal resistance	$R_{th(j-c)}$	Junction to case	5.0	$^\circ C/W$

\*\* Rating per element

- Mechanical Characteristics

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

### Outline Drawings

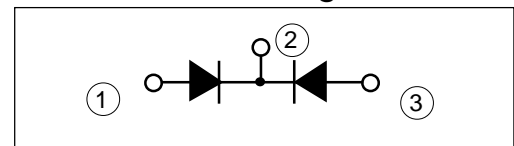


JEDEC

EIAJ

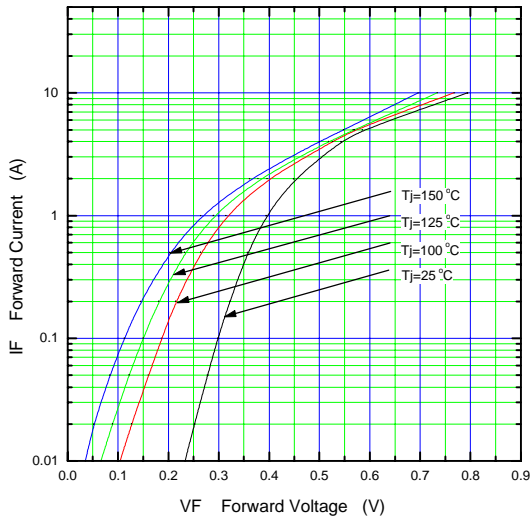
SC-67

### Connection Diagram

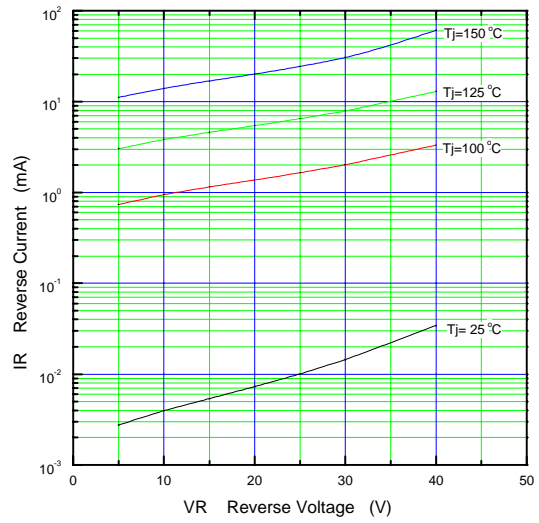


Characteristics

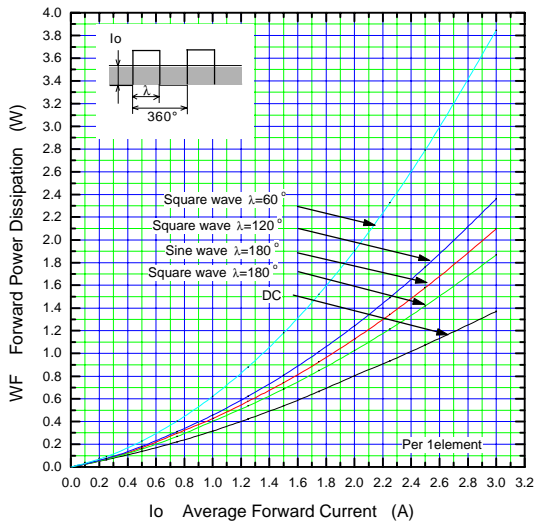
Forward Characteristic (typ.)



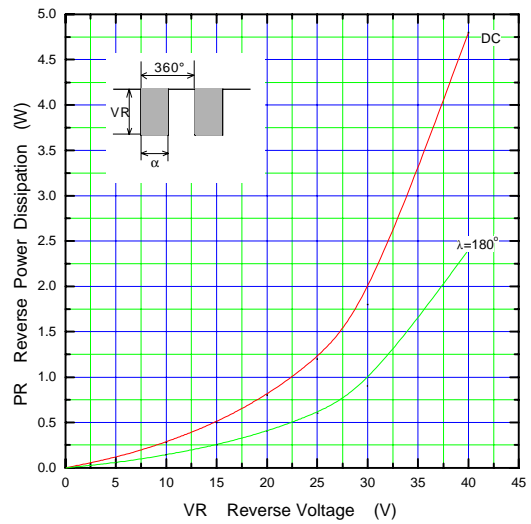
Reverse Characteristic (typ.)



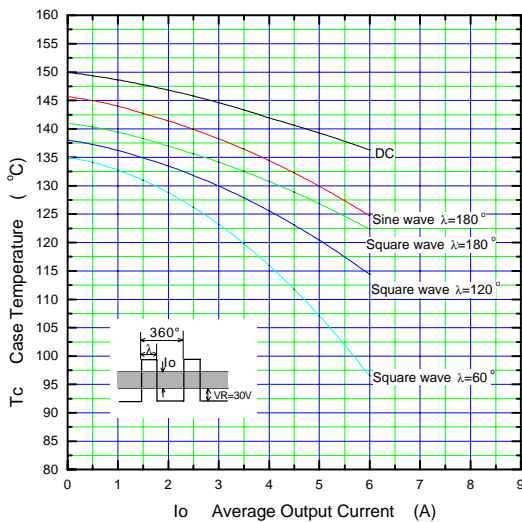
Forward Power Dissipation



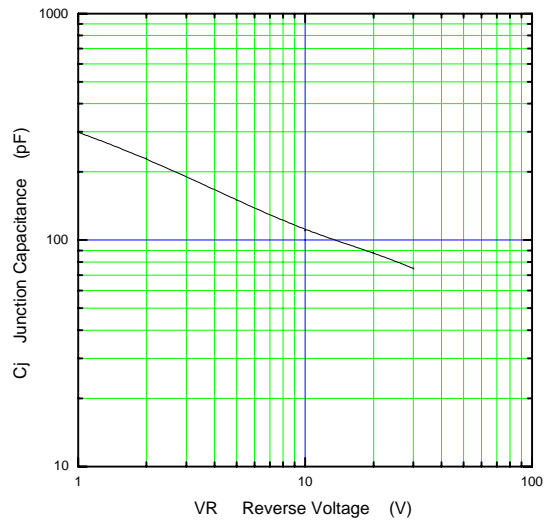
Reverse Power Dissipation



Current Derating ( $I_o$ - $T_c$ )

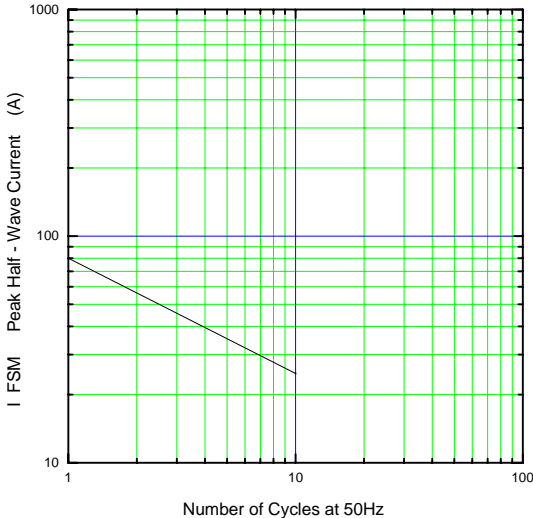


Junction Capacitance Characteristic (typ.)



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

Surge Capability



Transient Thermal Impedance

