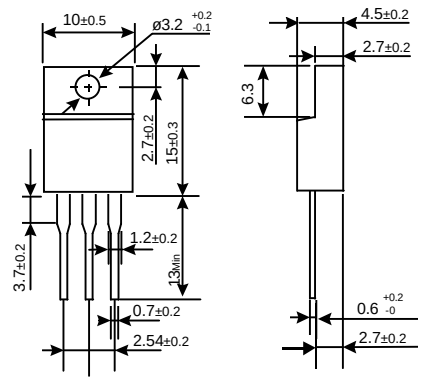
YG831C03R (30V / 6A TO-22OF15)

SCHOTTKY BARRIER DIODE

■ Outline Drawings



JEDEC	———
EIAJ	SC-67

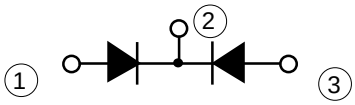
■ Features

- Low V_F
- Super high speed switching.
- High reliability by planer design.

■ Applications

- High speed power switching.

■ Connection Diagram



■ Maximum Ratings and Characteristics

- Absolute Maximum Ratings

Item	Symbol	Conditions	Rating	Unit
Repetitive peak reverse voltage	V_{RRM}		30	V
Repetitive peak surge reverse voltage	V_{RSM}	tw=500ns, duty=1/40	30	V
Isolating voltage	V_{iso}	Terminals to Case, AC. 1min.	1500	V
Average output current	I_O	duty=1/2, Tc=127°C Square wave	6*	A
Suege current	I_{FSM}	Sine wave 10ms	90	A
Operating junction temperature	T_j		+150	°C
Storage temperature	T_{stg}		-40 to +150	°C

* Out put current of centertap full wave connection.

- Electrical Characteristics (Ta=25°C Unless otherwise specified)

Item	Symbol	Conditions	Max.	Unit
Forward voltage drop **	V_F	I_F=2.0A	0.45	V
Reverse current **	I_R	$V_R=V_{RRM}$	5.0	mA
Thermal resistance	$R_{th(j-c)}$	Junction to case	5.0	°C/W

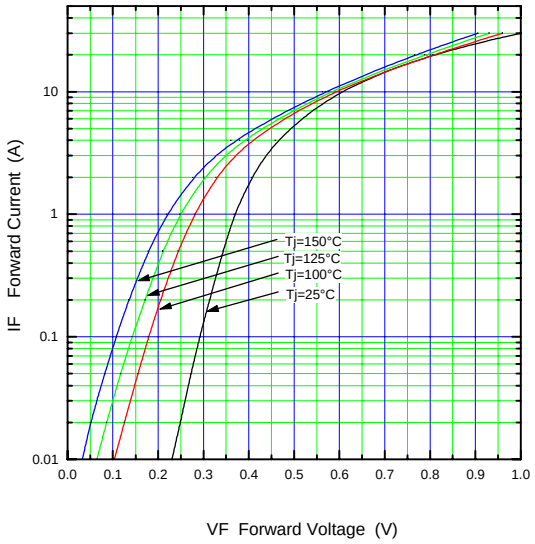
** Rating per element

- Mechanical Characteristics

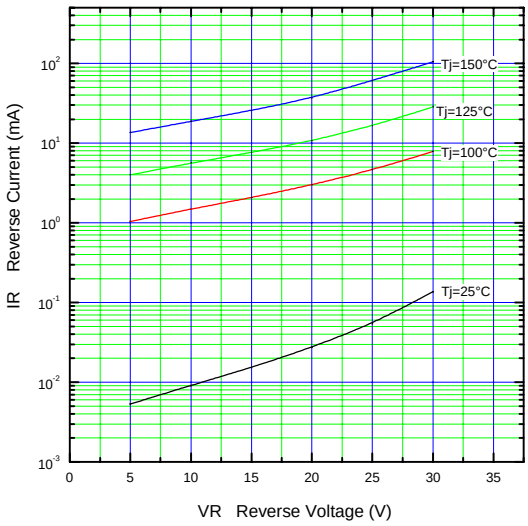
Mounting torque	Recommended torque	0.3 to 0.5	N · m
Weight		2.0	g

■ Characteristics

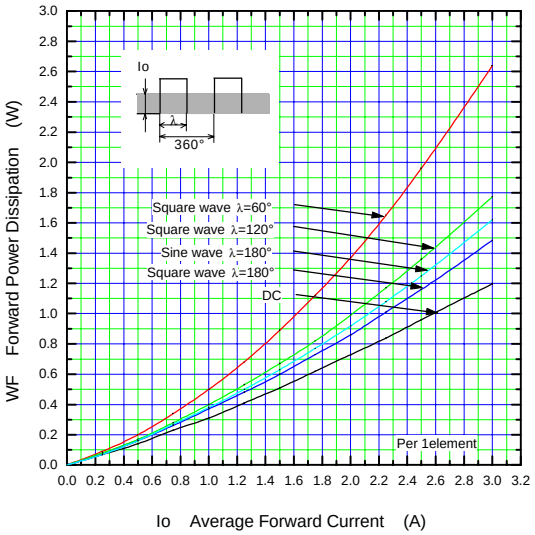
Forward Characteristic (typ.)



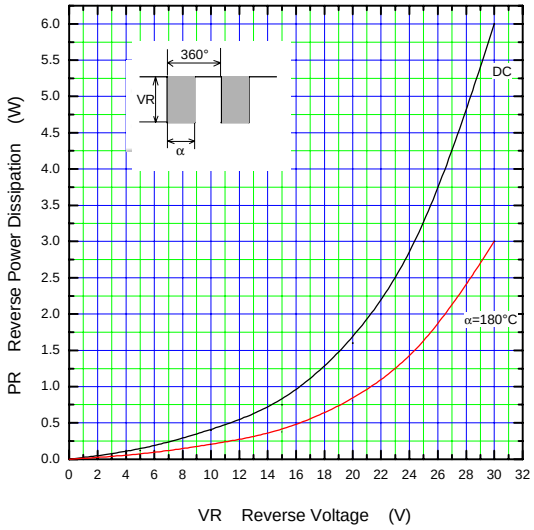
Reverse Characteristic (typ.)



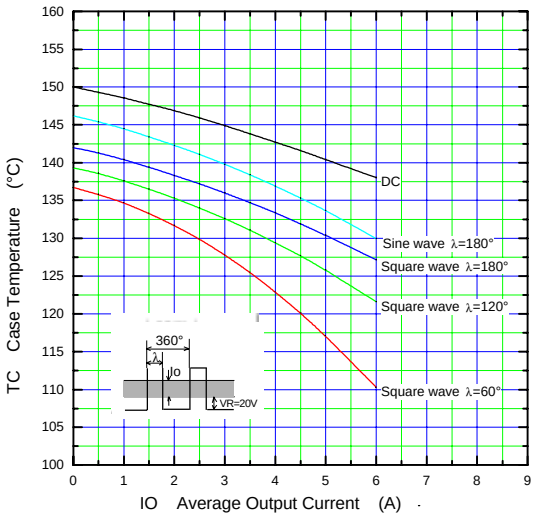
Forward Power Dissipation



Reverse Power Dissipation

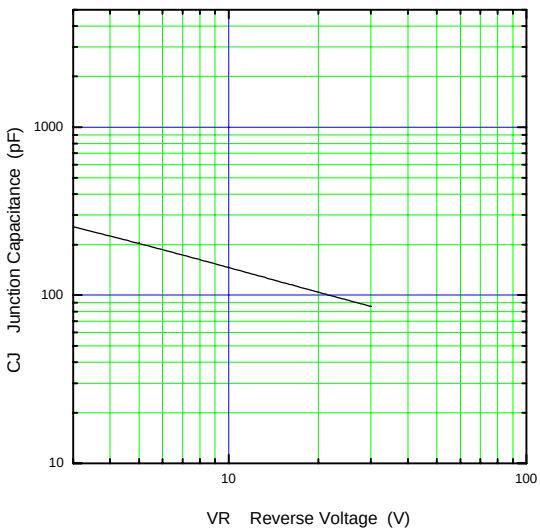


Current Derating (Io-Tc)

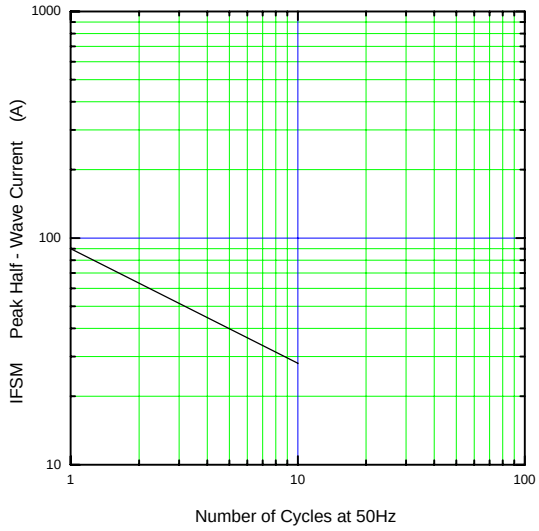


λ :Conduction angle of forward current for each rectifier element
Io:Output current of center-tap full wave connection

Junction Capacitance Characteristic (typ.)



Surge Capability



Transient Thermal Impedance