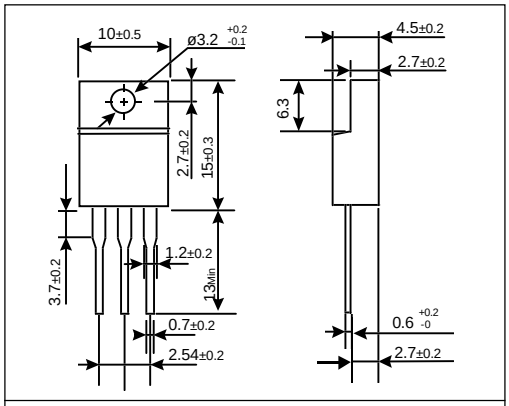
YG902C3R (300V / 10A TO-22OF15)

LOW LOSS SUPER HIGH SPEED DIODE

■ Outline Drawings



JEDEC	———
EIAJ	SC-67

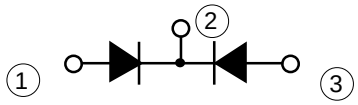
■ Features

- 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}		300	V
Repetitive peak surge reverse voltage	V_{RSM}		300	V
Isolating voltage	V_{iso}	Terminals to Case, AC. 1min.	1500	V
Average output current	I_O	duty=1/2, Tc=101°C Square wave	10*	A
Suege current	I_{FSM}	Sine wave 10ms	40	A
Operating junction temperature	T_j		-40 to +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)

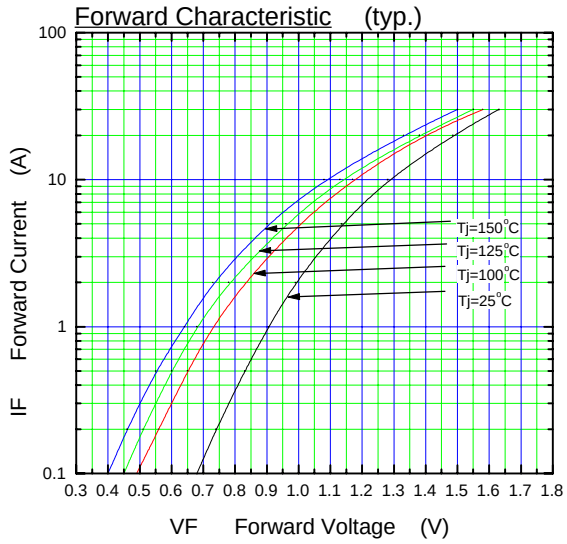
Item	Symbol	Conditions	Max.	Unit
Forward voltage drop **	V_F	I_F=5A	1.2	V
Reverse current **	I_R	V_R=V_{RRM}	100	μA
Reverse recovery time	trr	I_F=0.1A,I_R=0.2A,Irec=0.05A	35	ns
Thermal resistance	$R_{th(j-c)}$	Junction to case	3.5	°C/W

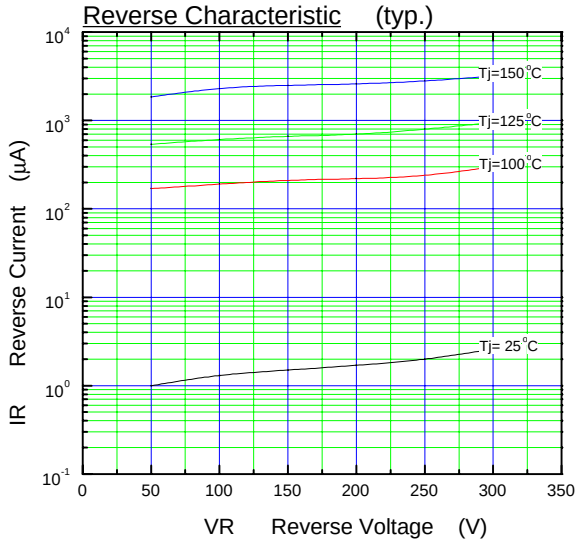
** Rating per element

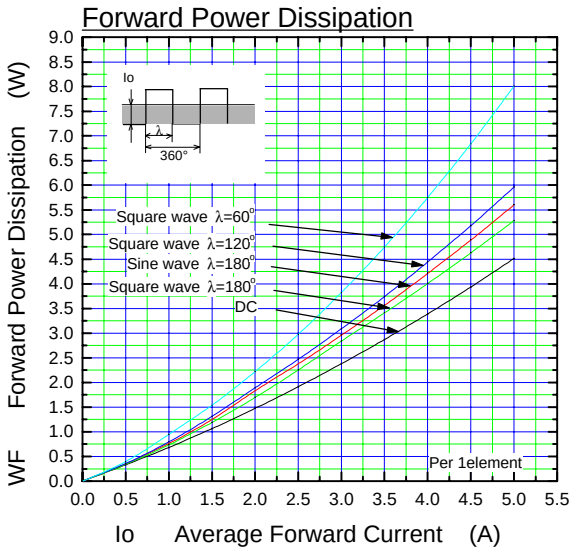
- Mechanical Characteristics

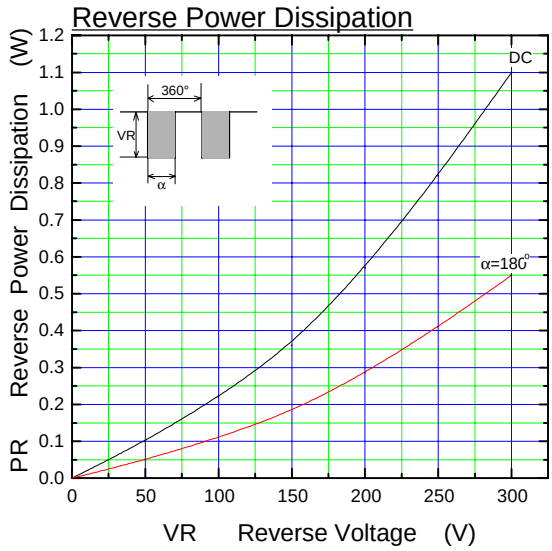
Mounting torque	Recommended torque	0.3 to 0.5	N · m
Weight		2.3	g

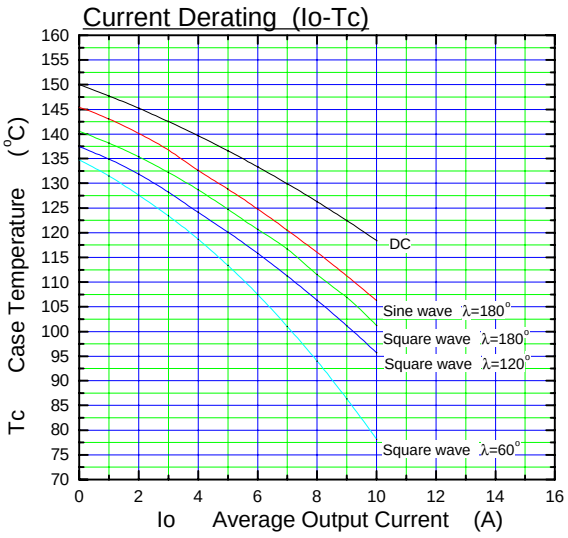
■ Characteristics



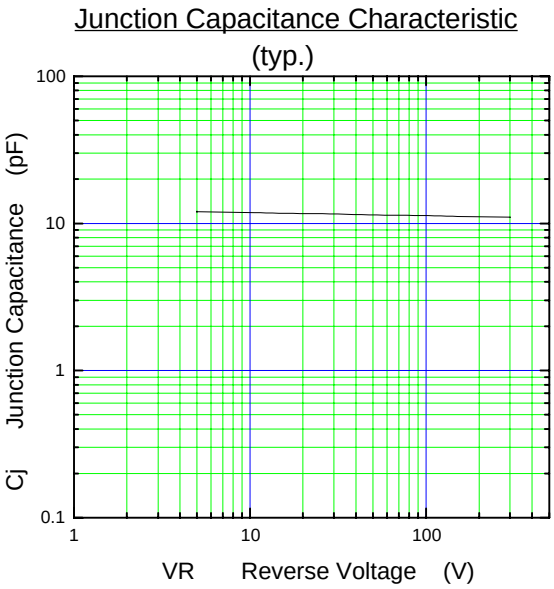


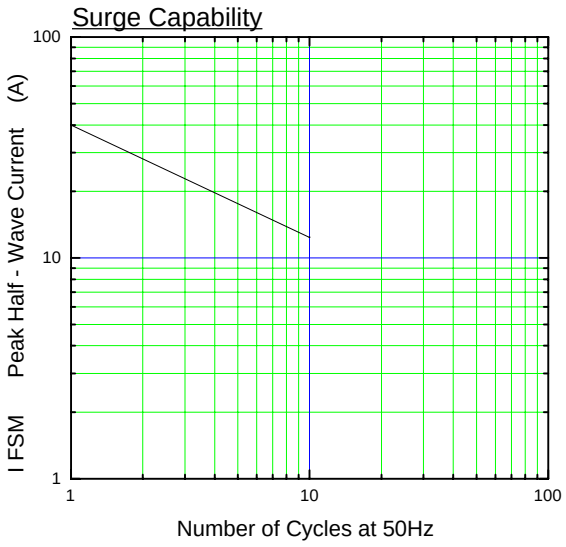


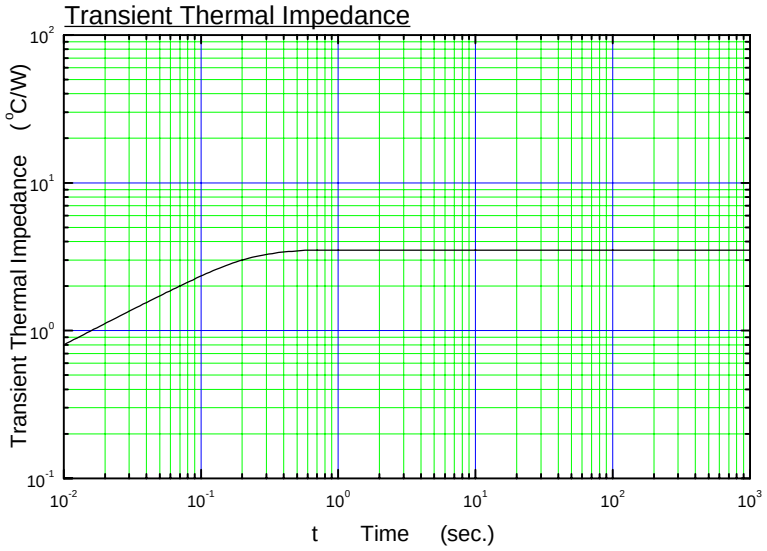




λ:Conduction angle of forward current for each rectifier element
Io:Output current of center-tap full wave connection




Surge Capability
100
10
1
1
10
100
I FSM Peak Half - Wave Current (A)
Number of Cycles at 50Hz


Transient Thermal Impedance
10^2
10^1
10^0
10^{-1}
10^{-2}
10^{-1}
10^0
10^1
10^2
10^3
Transient Thermal Impedance (°C/W)
t Time (sec.)