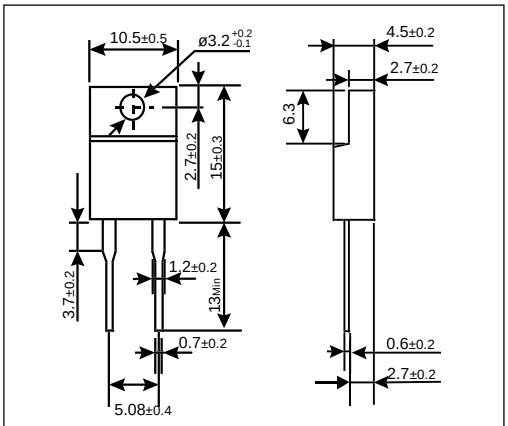
YG912S2R (200V / 10A TO-22OF15)

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}		200	V
Repetitive peak surge reverse voltage	V_{RSM}		200	V
Isolation voltage	V_{iso}	Terminals to Case, AC. 1min.	1500	V
Average output current	I_O	duty=1/2, Tc=116°C Rectangl wave	10	A
Surge current	I_{FSM}	Sine wave 10ms	80	A
Operating junction temperature	T_j		-40 to +150	°C
Storage temperature	T_{stg}		-40 to +150	°C

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

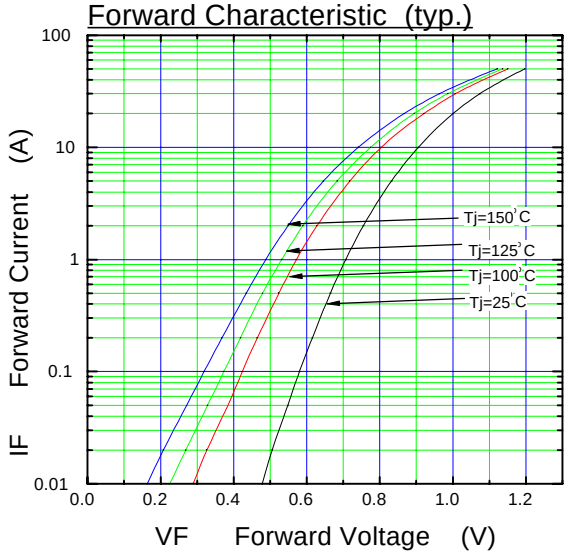
Item	Symbol	Conditions	Max.	Unit
Forward voltage drop	V_F	I_F=10A	0.98	V
Reverse current	I_R	$V_R=V_{RRM}$	200	μA
Reverse recovery time	trr	I_F=0.1A,I_R=0.2A,Irec=0.05A	35	ns
Thermal resistance	$R_{th(j-c)}$	Junction to case	3.5	°C/W

- Mechanical Characteristics

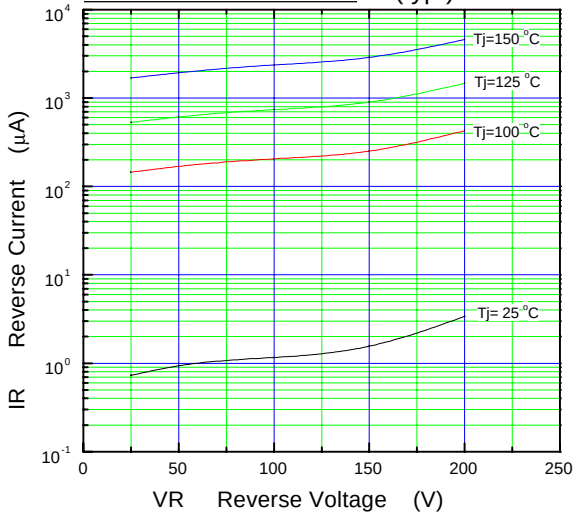
Mounting torque	Recommended torque	0.3 to 0.5	N · m
Weight		2.3	g

■ Characteristics

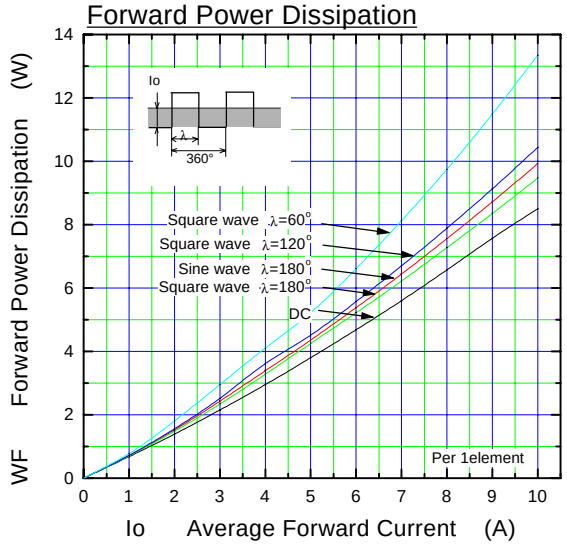
Forward Characteristic (typ.)



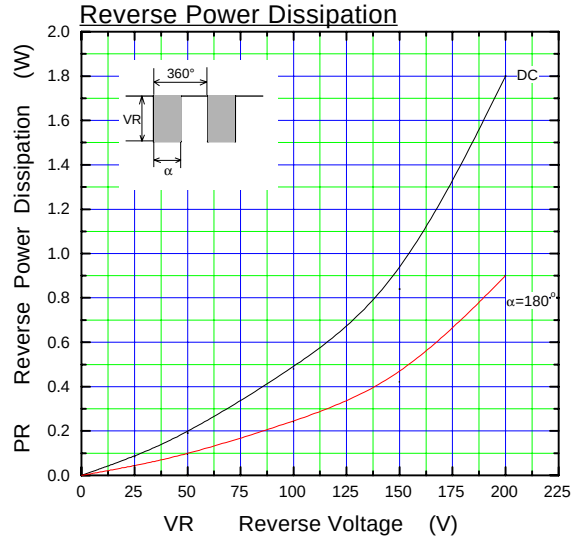
Reverse Characteristic (typ.)



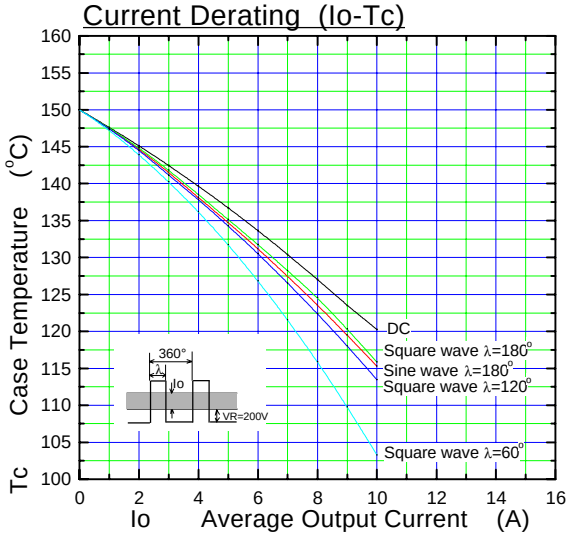
Forward Power Dissipation



Reverse Power Dissipation

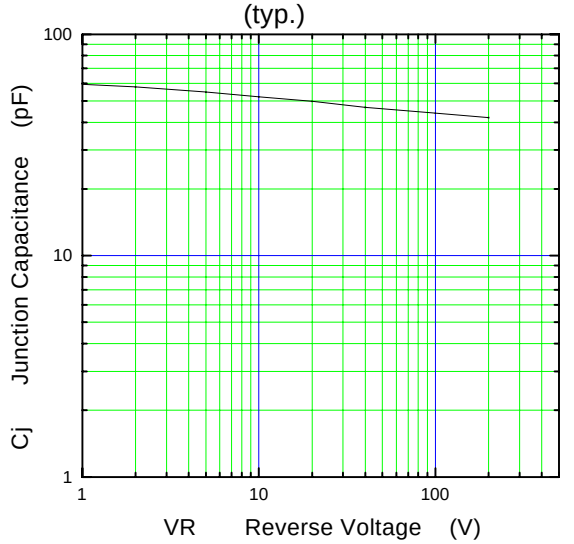


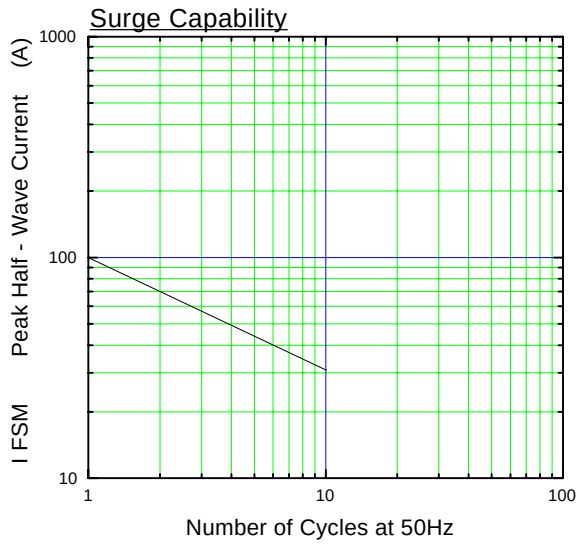
Current Derating (Io-Tc)

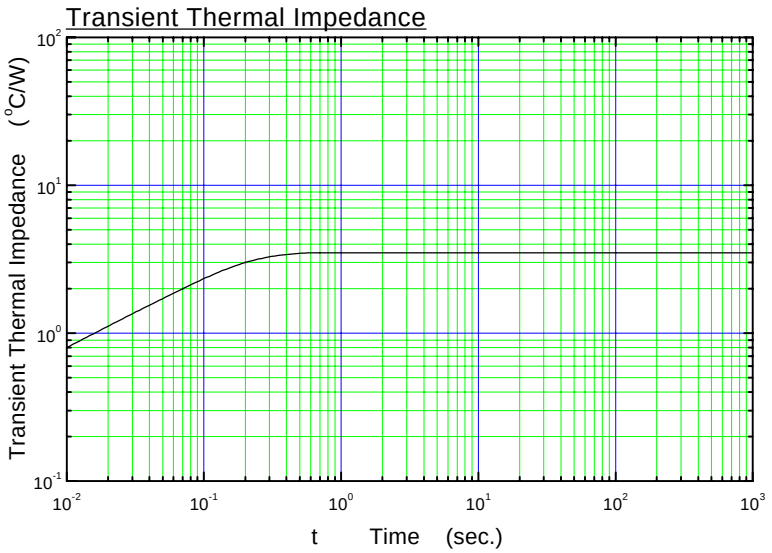


λ:Conduction angle of forward current for each rectifier element
Io:Output current of center-tap full wave connection

Junction Capacitance Characteristic (typ.)




Surge Capability
I FSM Peak Half - Wave Current (A)
1000
100
10
1
10
100
Number of Cycles at 50Hz


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