FUJI ELECTRIC

2RI 100G-120/160

2-Pack Diode
1200/1600 V
100 A

POWER DIODE MODULE

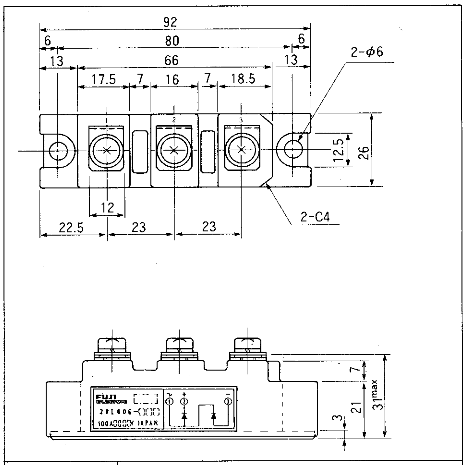
Features

- All the terminals and the mounting plate are electrically isolated. These modules can be installed in the same cooling fin as other modules, thus saving installation space —a cost-effective feature.
- The diode chips are coated with a glass of zinc oxide, making them highly resistant to temperature and humidity variation.
- Two diodes chips are connected in series internally, so allowing the rectifying circuit to be simplified.

Applications

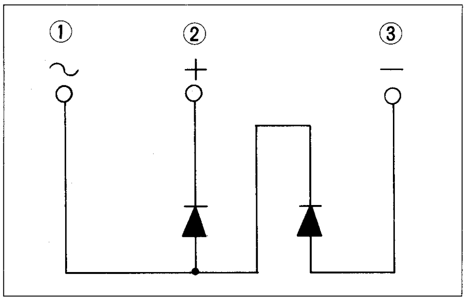
- Inverters for AC motors
- Power supply units for DC motors
- DC power supply units for battery chargers
- General purpose DC power supply units

■ Outline Drawings



CASE	R204

■ Inner Circuit Schematic



■ Maximum Ratings and Characteristics

• Absolute Maximum Ratings

Items	Symbols	Conditions	2RI100G		Units
			−120	−160	
Repetitive peak reverse voltage	V_{RRM}		1200	1600	V
Non-repetitive peak reverse voltage	V_{RSM}		1320	1760	V
Average forward current	$I_{F(AV)}$	50/60 Hz Sinewave,T_C = 98°C	2×100		A
Surge current	I_{FSM}	Rated load conditions, 10 ms	1200		A
I^2t	I^2t	Rated load conditions	16000		A^2s
Junction temperature	T_j		−40~+150		°C
Storage temperature	T_{stg}		−40~+125		°C
Tightening torque		Mounting screw: M5	25±5		kg·cm
Vibration resistance			5		G
Dielectric strength		Between terminals and base	2500 VAC 1min		
Net. Weight			180		g

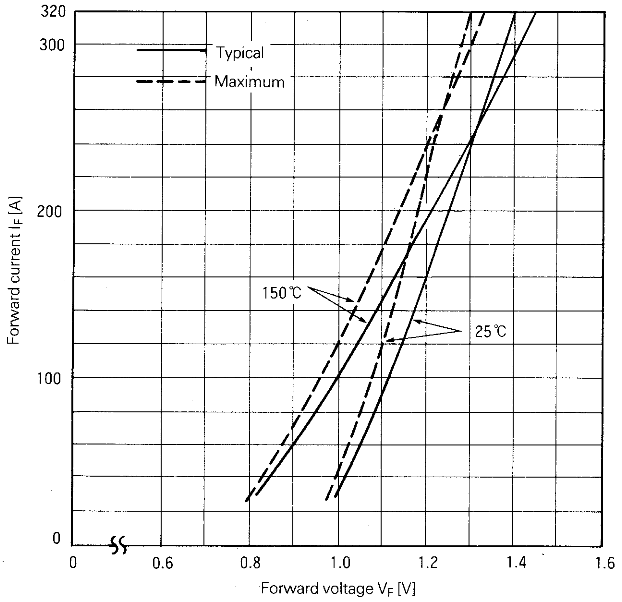
• Electrical Characteristics

Items	Symbols	Conditions	Min	Typ	Max	Units
Forward voltage	V_{FM}	T_j=25°C, I_{FM}=320 A			1.40	V
Reverse current	I_{RRM}	T_j=150°C, V_R=V_{RRM}			30	mA

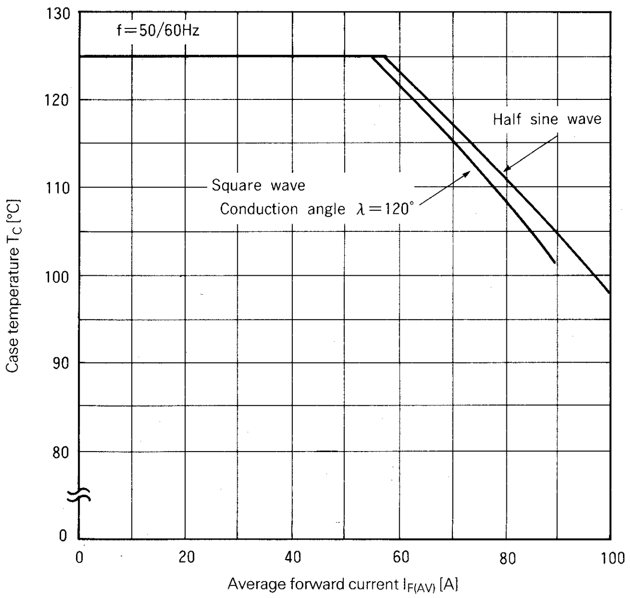
• Thermal Characteristics

Items	Symbols	Conditions	Min	Typ	Max	Units
Thermal resistance (Junction to case)	$R_{th(j-c)}$	50/60 Hz Sinewave, Thermal resistance for total loss			0.20	°C/W
Thermal resistance	$R_{th(c-f)}$	With thermal compound			0.10	°C/W

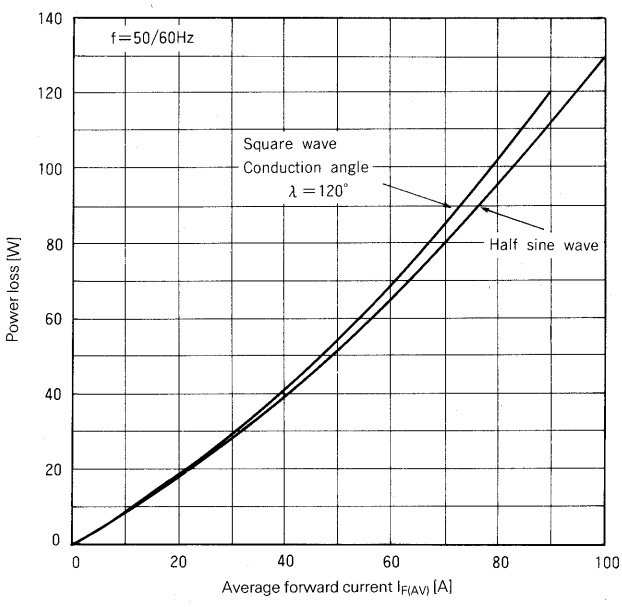
■ Characteristic curves



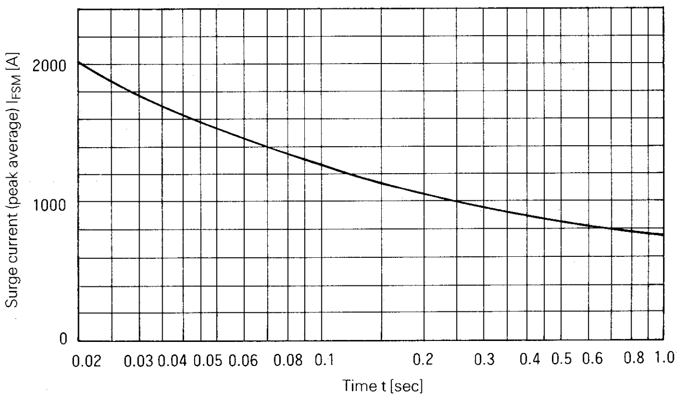
Forward Characteristics



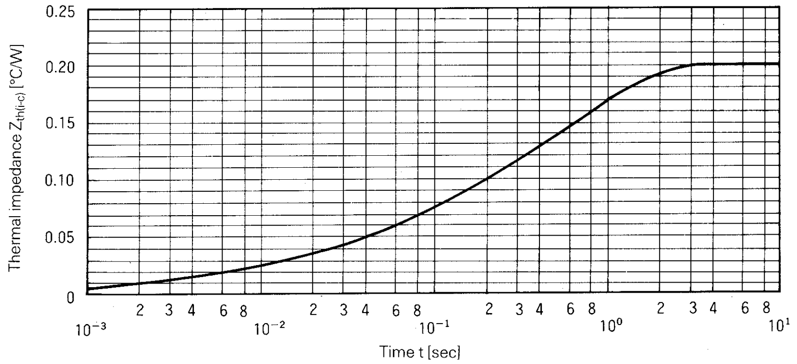
Case Temperature vs. Average Forward Current



Power Loss vs. Average Forward Current



Surge Current



Transient Thermal Impedance

For more information, contact:

Collmer Semiconductor, Inc.
P.O. Box 702708
Dallas, TX 75370
972-733-1700
972-381-9991 Fax
http://www.collmer.com