FUJI ELECTRIC

6RI 100E-060/080

6-Pack Diode
600/800 V
100 A

POWER DIODE MODULE

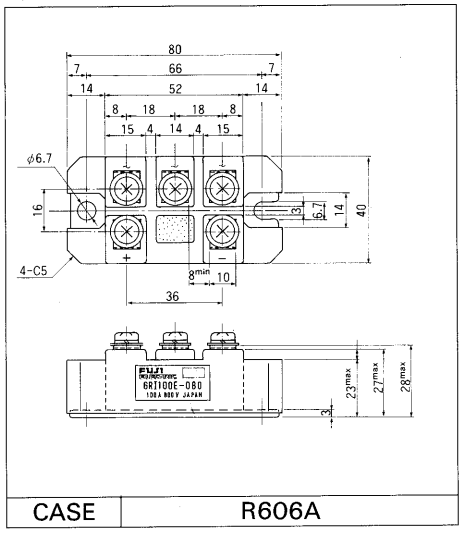
Features

- 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.
- 6 diode chips are connected to the 3-phase bridge rectifying circuit inside the module-a cost-effective feature.

Applications

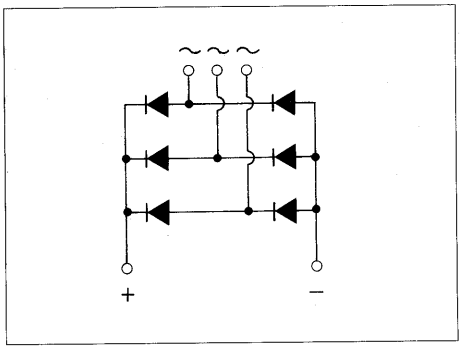
- Inverters for AC motors
- Power supply units for DC motors
- DC power supply units for battery chargers
- General purpose DC power supply units

■ Outline Drawings



CASE	R606A

■ Inner Circuit Schematic



■ Maximum Ratings and Characteristics

• Absolute Maximum Ratings

Items	Symbols	Conditions	6RI100E		Units
			–060	–080	
Repetitive peak reverse voltage	V_{RRM}		600	800	V
Non-repetitive peak reverse voltage	V_{RSM}		660	880	V
Average output current	I_O	50/60 Hz Sinewave, T_C = 103°C	100		A
Surge current	I_{FSM}	Rated load conditions	1200		A
I^2t	I^2t	Rated load conditions	6000		A^2s
Junction temperature	T_j		–40~+150		°C
Storage temperature	T_{stg}		–40~+125		°C
Tightening torque		Mounting screw: M5	25±2		kg·cm
Vibration resistance			5		G
Dielectric strength		Between terminals and base	2000 VAC 1 min		
Net. Weight			150		g

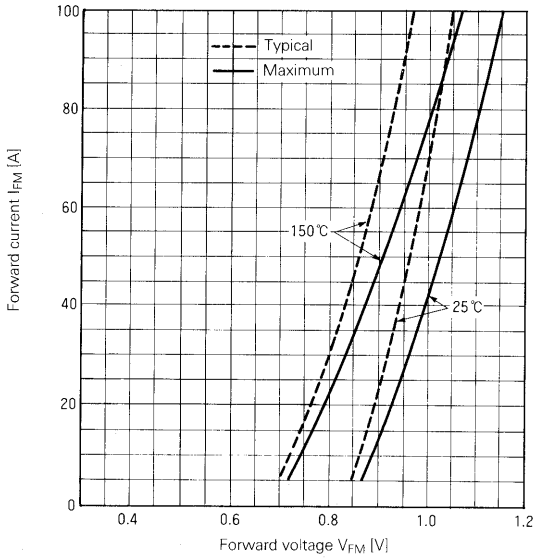
• Electrical Characteristics

Items	Symbols	Conditions	Min	Typ	Max	Units
Forward voltage	V_{FM}	T_j=25°C, I_{FM}=100 A			1.15	V
Reverse current	I_{RRM}	T_j=150°C, V_R=V_{RRM}			10	mA

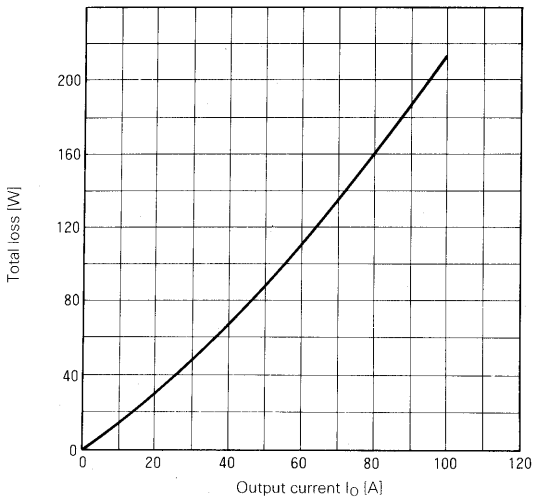
• Thermal Characteristics

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			0.22	°C/W
Thermal resistance	$R_{th(c-f)}$	With thermal compound			0.06	°C/W

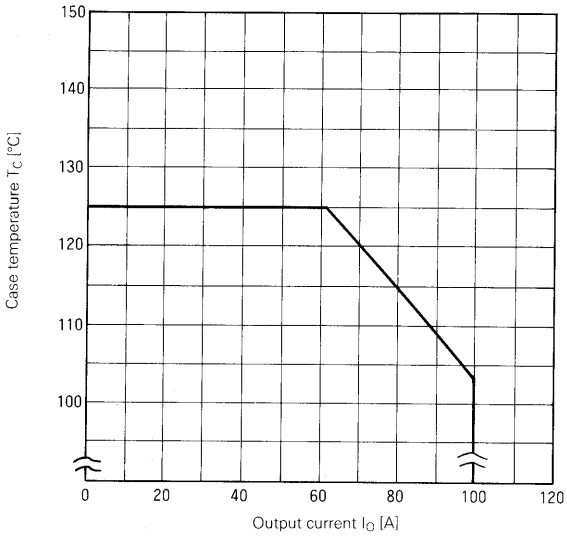
■ Characteristic curves



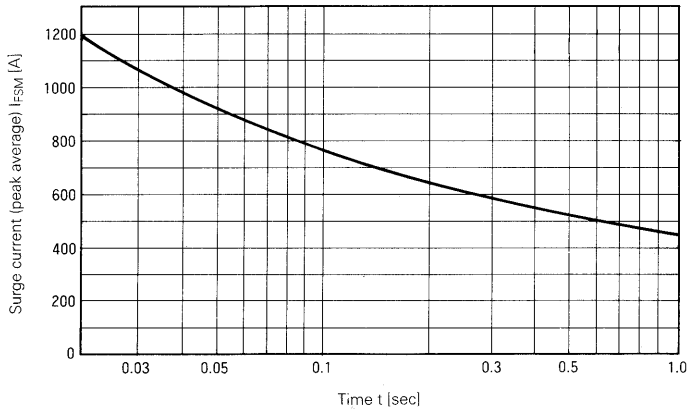
Forward Characteristics



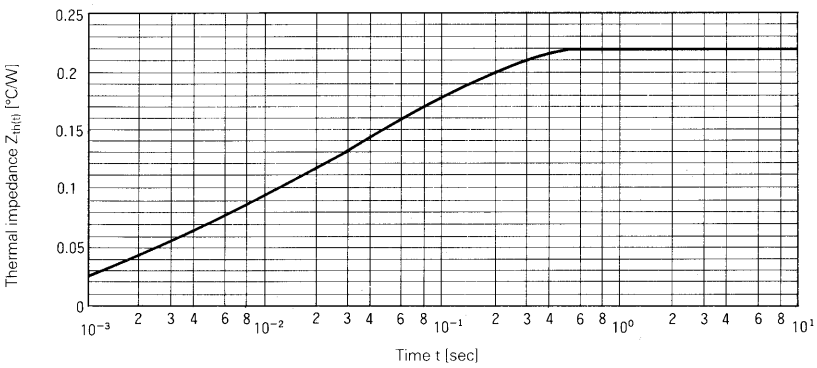
Total Loss-Output Current



Case Temperature-Output Current



Surge Current



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