

FUJI
ELECTRIC

6RI 75E-060/080

**6-Pack Diode
600/800 V
75 A**

POWER DIODE MODULE

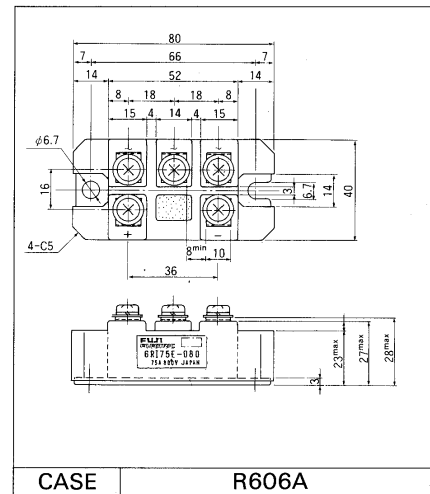
Features

- 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.

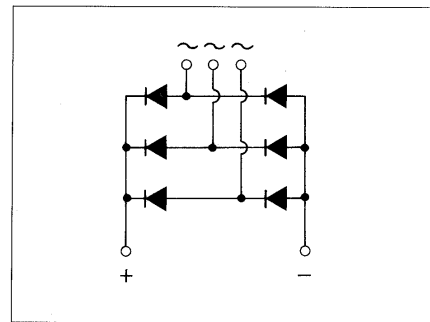
Applications

- 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



■ Inner Circuit Schematic



■ Maximum Ratings and Characteristics

- Absolute Maximum Ratings

Items	Symbols	Conditions	6R175E		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. $T_C = 101^{\circ}C$	75		A
Surge current	I_{FSM}	Rated load conditions	1000		A
I_t^2	I_t^2	Rated load conditions	4000		A ² s
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

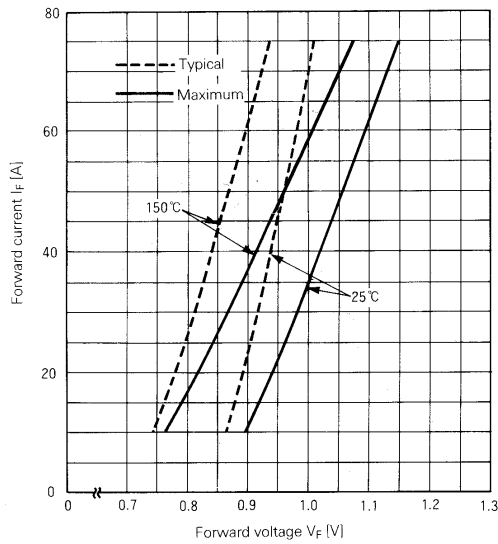
Items	Symbols	Conditions	Min	Typ	Max	Units
Forward voltage	V_{FM}	$T_j=25^{\circ}\text{C}$, $I_{FM}=100\text{ A}$			1.15	V
Reverse current	I_{RRM}	$T_j=150^{\circ}\text{C}$, $V_R=V_{RRM}$			10	mA

- Thermal Characteristics

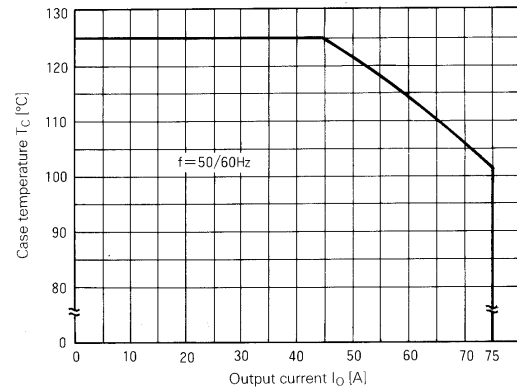
Items	Symbols	Conditions	Min	Typ	Max	Units
Thermal resistance (Junction to case)	$R_{th(j-c)}$	50/60 Hz Sinewave, Thermal resistance for total loss			0.30	°C/W
Thermal resistance	$R_{th(c-f)}$	With thermal compound			0.06	°C/W

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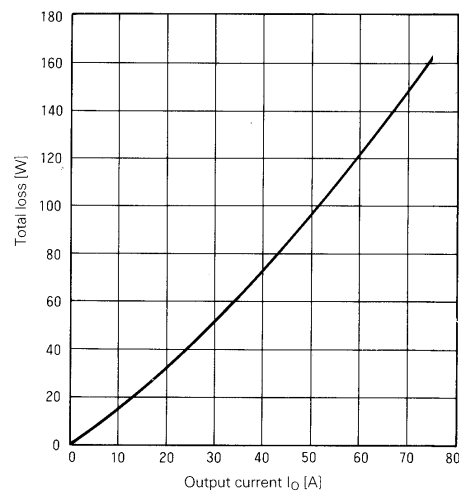
■ Characteristic curves



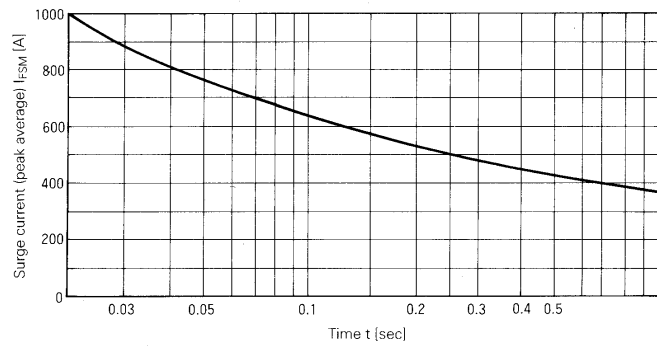
Forward Characteristics



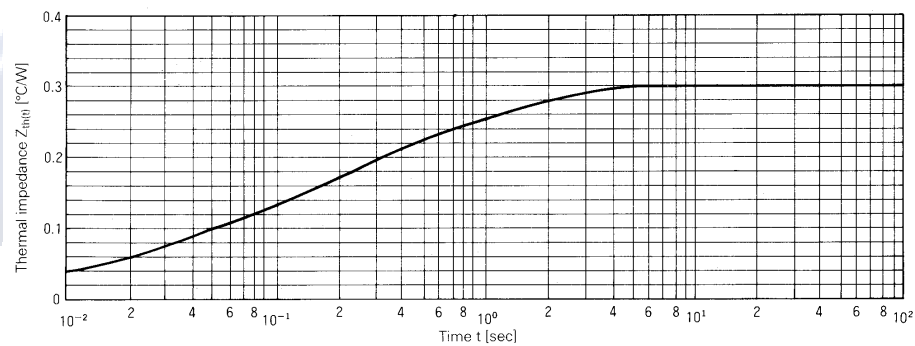
Case Temperature-Output Current



Output Current-Total Loss

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Surge Current



Transient Thermal Impedance

Electrónica S.A. de C.V.