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# 6RI100G(100A)

## POWER DIODE MODULE

1200V,1600V / 100A

6 in one-package

### Features

- Glass Passivation Chip
- Easy Connection
- Insulated Type

### Applications

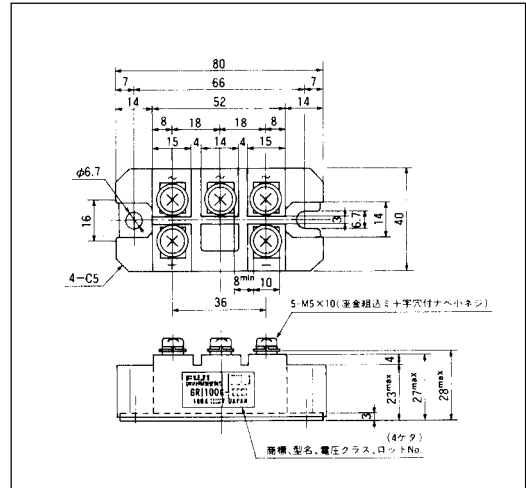
- Inverters
- Battery Chargers
- DC Motors
- General Purpose DC Power Supplies



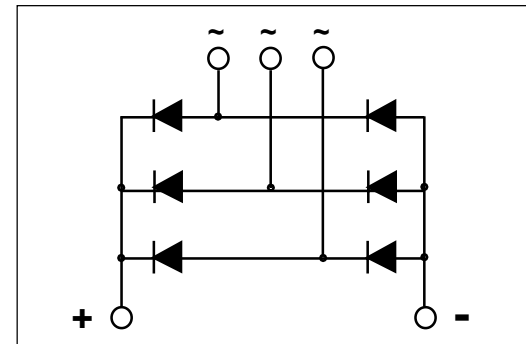
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تلفن: ۰۲۱-۶۶۷۶۶۹۲۷



### Outline Drawings, mm



### Inner Circuit Schematic



### Maximum ratings and characteristics

#### Absolute maximum ratings

Item	Symbol	Conditions	Rating		Unit
			-120	-160	
Repetitive peak reverse voltage	$V_{RRM}$		1200	1600	V
Non-repetitive peak reverse voltage	$V_{RSM}$		1320	1760	V
Average output current	$I_O$	50/60Hz Sine wave, $T_c=97^{\circ}C$	100		A
Surge current	$I_{FSM}$	From rated load, Sine wave 10ms	1200		A
$I^2t$	$I^2t$	From rated load	6000		A <sup>2</sup> s
Operating junction temperature	$T_j$		-40 to +150		$^{\circ}C$
Storage temperature	$T_{stg}$		-40 to +125		$^{\circ}C$
Isolation voltage	$V_{is}$		AC2500(1min.)		V
Screw torque			3.5 *1		N·m

\*1: Recommendable value : 2.5 to 3.0 N·m(M5)

#### Electrical characteristics (Ta=25°C Unless otherwise specified)

Item	Symbol	Conditions	Min.	Typ.	Max.	Unit
Forward voltage drop	$V_{FM}$	$T_j=25^{\circ}C, I_{FM}=100A$			1.25	V
Reverse current	$I_{RRM}$	$T_j=150^{\circ}C, V_R=V_{RRM}$			20	mA

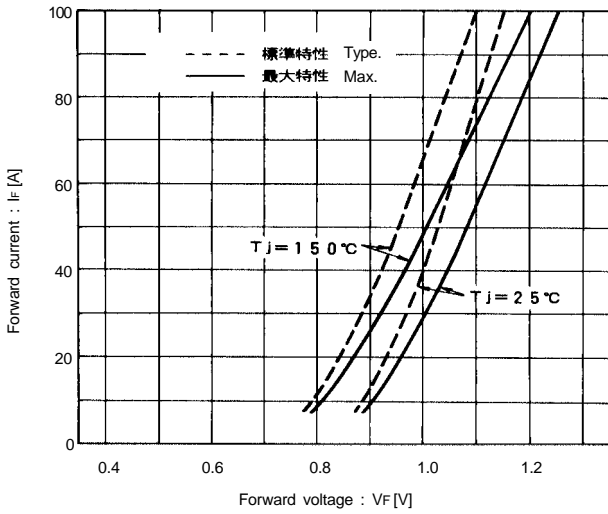
#### Thermal Characteristics

Item	Symbol	Conditions	Min.	Typ.	Max.	Unit
Thermal resistance	$R_{th(j-c)}$	Junction to case			0.22	$^{\circ}C/W$
	$R_{th(c-f)}$	the base to cooling fin *			0.06	$^{\circ}C/W$

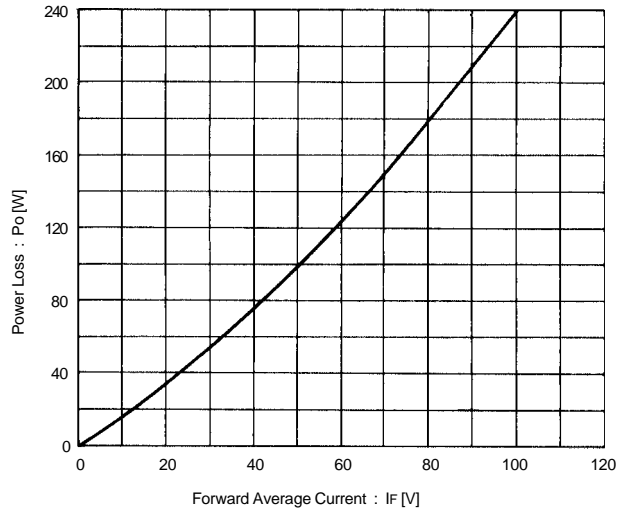
\* : With Thermal Compound

■ Characteristics

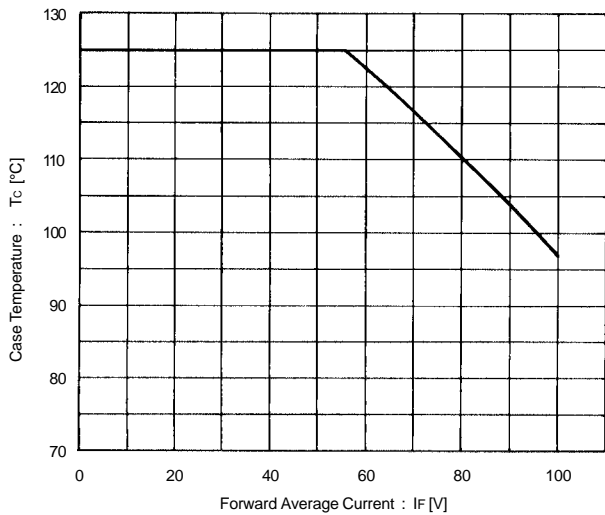
Forward Characteristics



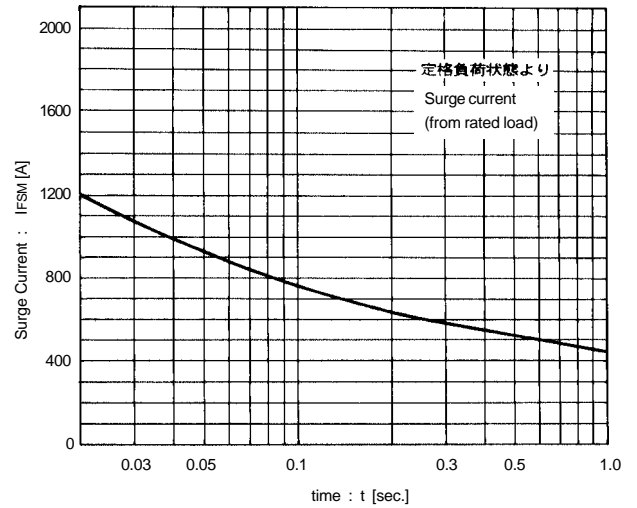
Forward Average Current vs. Power Loss



Forward Average Current vs. Case Temperature



Surge Current



Transient Thermal Impedance

