6RI75G(75A)

POWER DIODE MODULE

1200V,1600V / 75A

6 in one-package

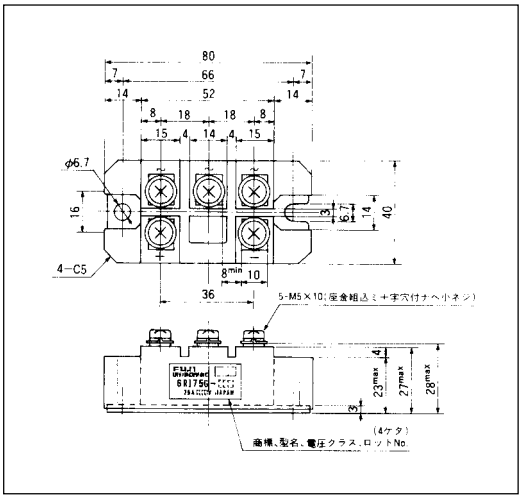
■ Features

· Glass Passivation Chip
· Easy Connection
· Insulated Type

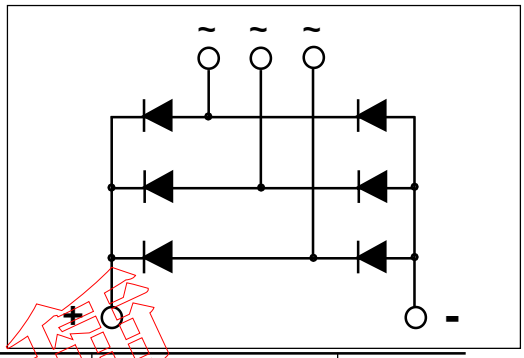
■ Applications

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

■ Outline Drawings, mm



■ Inner Curcuit 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, Tc=93°C	75		A
Surge current	I_{FSM}	From rated load, Sine wave 10ms	1000		A
I^2t	I^2t	From rated load	4000		A^2s
Operating junction temperature	T_j		-40 to +150		°C
Storage temperature	T_{stg}		-40 to +125		°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}	Tj=25°C, I_{FM}=75A			1.30	V
Reverse current	I_{RRM}	Tj=150°C, V_R=V_{RRM}			15.0	mA

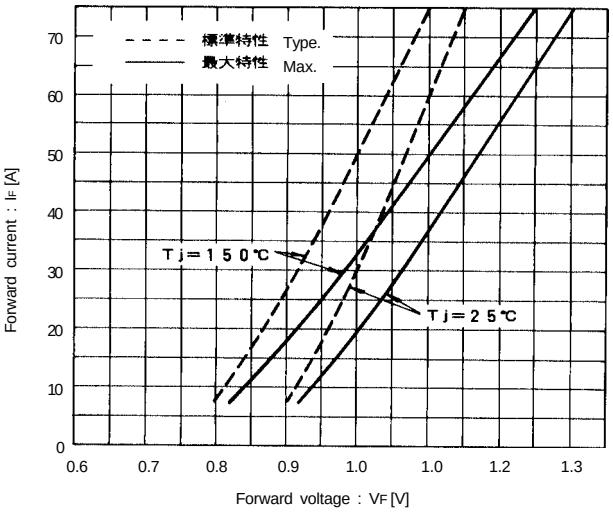
● **Thermal Characteristics**

Item	Symbol	Conditions	Min.	Typ.	Max.	Unit
Thermal resistance	$R_{th(j-c)}$	Junction to case			0.30	°C/W
	$R_{th(c-f)}$	the base to cooling fin *			0.06	°C/W

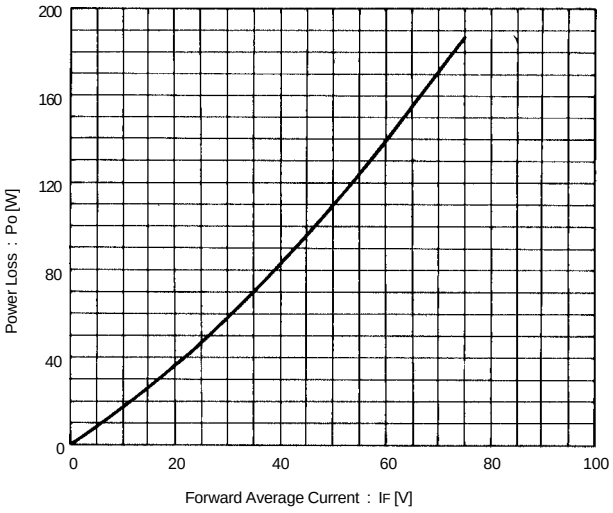
* : With Thermal Compound

■ Characteristics

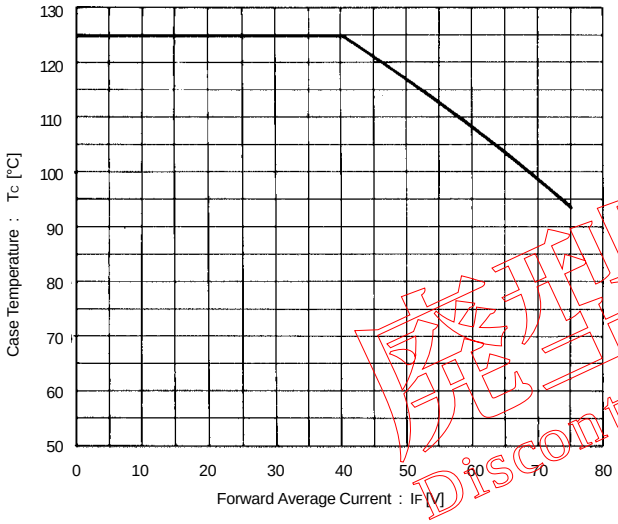
Forward Characteristics



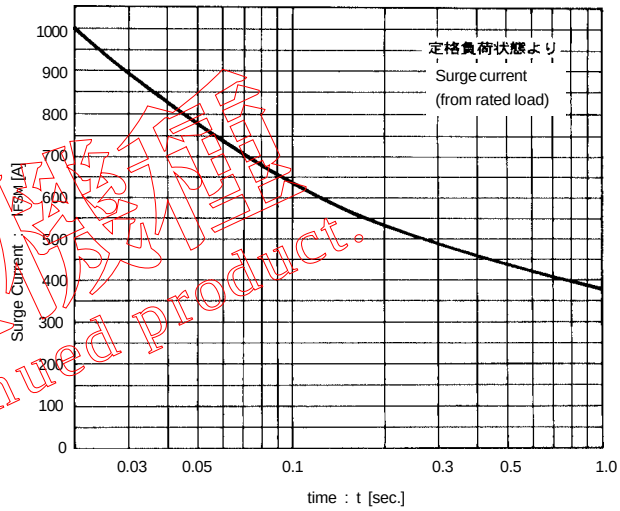
Forward Average Current vs. Power Loss



Forward Average Current vs. Case Temperature



Surge Current



Transient Thermal Impedance