

2FI200A-060(2x100A)

FAST RECOVERY DIODE MODULE

600V / 100A

2 in one-package

FAST RECOVERY DIODE MODULE

Features

- Short Reverse Recovery Time
- Variety of Connection Menu
- Insulated Type

Applications

- Arc-Welders
- Free-Wheeling Diode
- High Speed Rectifiers

Maximum ratings and characteristics

Absolute maximum ratings

Item	Symbol	Conditions	Rating	Unit
Repetitive peak reverse voltage	V_{RRM}		600	V
Non-repetitive peak reverse voltage	V_{RSM}		650	V
Average output current	$I_{F(AV)}$	50/60Hz Square wave, $T_c=73^\circ\text{C}$	2 x 200	A
Surge current	I_{FSM}	From rated load, Sine wave 10ms	3200	A
I^2t	I^2t	From rated load	40000	A^2s
Operating junction temperature	T_j		-40 to +150	$^\circ\text{C}$
Storage temperature	T_{stg}		-40 to +150	$^\circ\text{C}$
Isolation voltage	V_{is}		AC1500(1min.)	V
Screw torque	Terminals	(M8)	8.0 *1	N·m
	Mountings	(M5)	3.5 *2	N·m

*1: Recommendable value : 6.5 to 7.5 N·m(M5) *2: Recommendable value : 2.5 to 3.0 N·m(M5)

Electrical characteristics ($T_a=25^\circ\text{C}$ Unless otherwise specified)

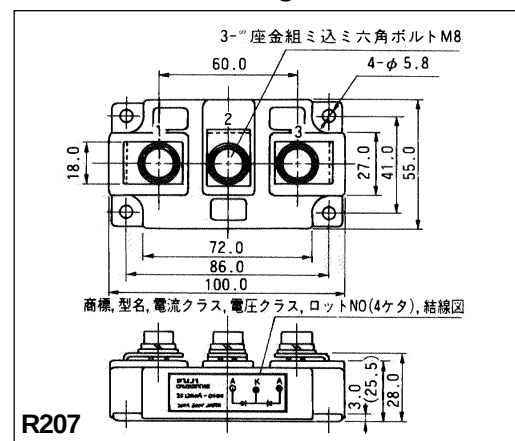
Item	Symbol	Conditions	Min.	Typ.	Max.	Unit
Forward voltage drop	V_{FM}	$T_j=25^\circ\text{C}$, $I_{FM}=200\text{A}$			1.25	V
Reverse current	I_{RRM}	$T_j=125^\circ\text{C}$, $V_R=V_{RRM}$			120	mA
Reverse recovery time	t_{rr}	$T_j=25^\circ\text{C}$, $I_F=I_R=0.1\text{A}$			0.5	μs

Thermal Characteristics

Item	Symbol	Conditions	Min.	Typ.	Max.	Unit
Thermal resistance	$R_{th(j-c)}$	Junction to case			0.12	$^\circ\text{C/W}$
	$R_{th(c-f)}$	the base to cooling fin *			0.05	$^\circ\text{C/W}$

* : With Thermal Compound

Outline Drawings, mm

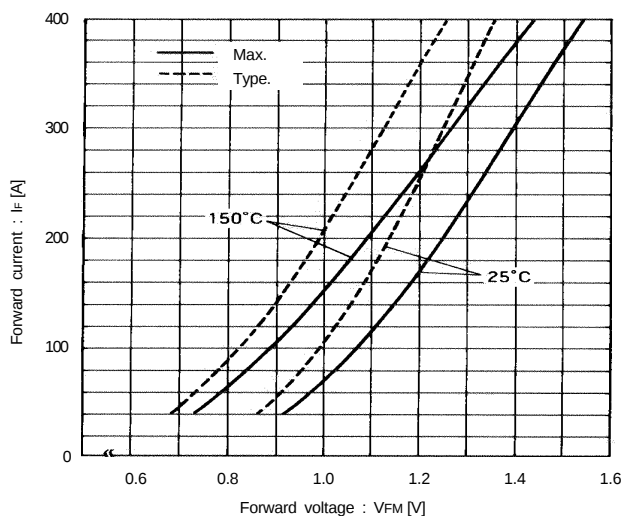


Inner Circuit Schematic

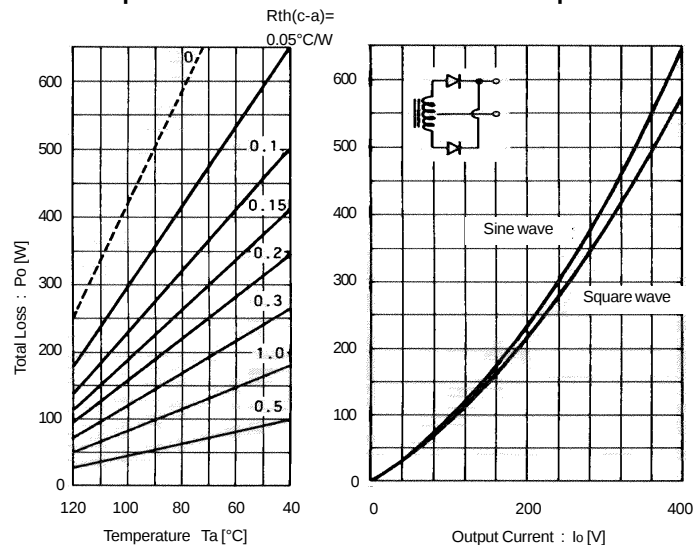
Symbol	Inner Circuit
C	A 1 $\rightarrow$ $\rightarrow$ 2 O K $\leftarrow$ 3 A
N	K 1 $\leftarrow$ $\leftarrow$ 2 O A $\rightarrow$ 3 K
D	A 1 $\rightarrow$ $\rightarrow$ 2 O A $\rightarrow$ 3 K

■ Characteristics

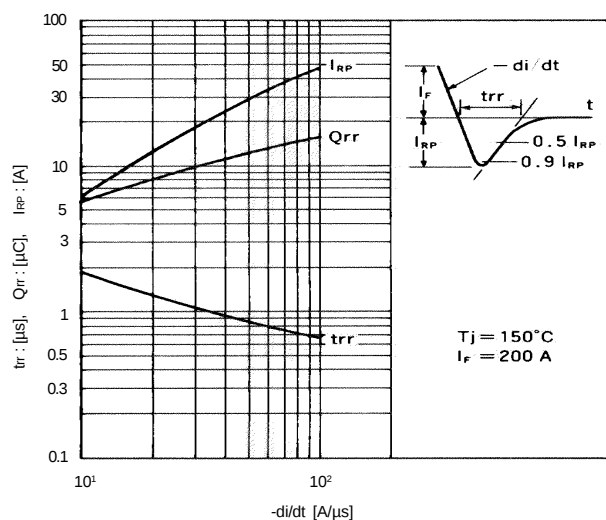
Forward Characteristics



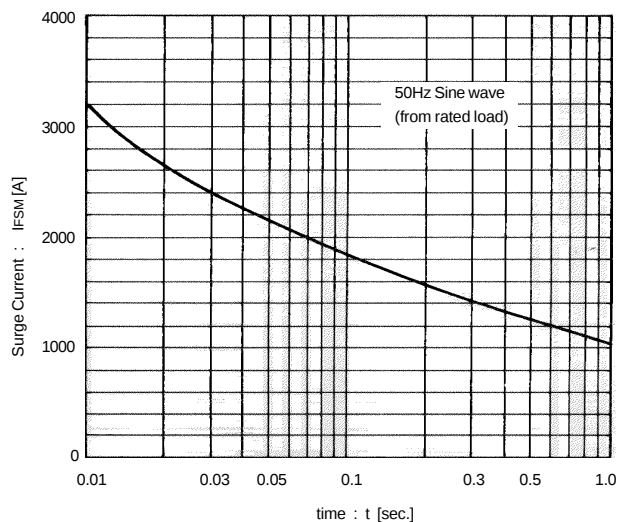
Output Current - Total Loss - Ambient Temperature



Reverse Recovery Characteristics



Surge Current



Transient Thermal Impedance

