DIODE MODULE (F.R.D.)

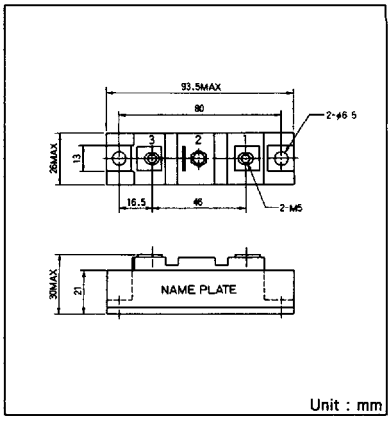
FRS200AA40/60

T-23-09

FRS200AA is a high speed isolated diode module designed for high power switching application. **FRS200AA** is suitable for high frequency application requiring low loss and high speed control.

- **High Speed trr≦200ns**
- $I_{F(AV)}$ 200A
- Isolated Maunting for each construction.
- High Surge Capability

(Applications)
Inverter Welding Power Supply
Power Supply for Telecommunication
Various Switching Power Supply.



Unit : mm

■Maximum Ratings

Tj=25°C

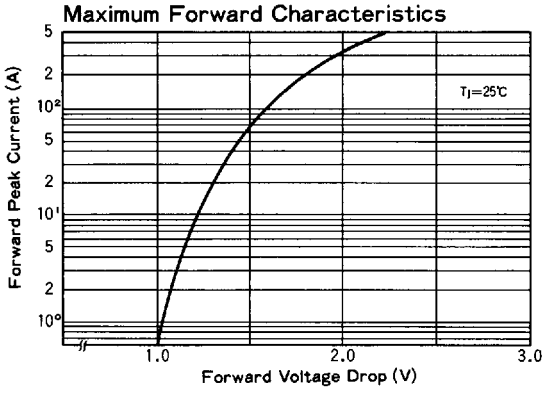
Symbol	Item	FRS200AA40	FRS200AA60	Unit
V_{RRM}	Repetitive Peak Reverse Voltage	400	600	V
V_{RSM}	Non-Repetitive Peak Reverse Voltage	480	720	V

Symbol	Item		Conditions	Ratings	Unit
$I_{F(AV)}$	Average Forward Current		D.C. Tc : 78°C	200	A
I_{FSM}	Surge Forward Current		½ cycle, 50/60Hz, peak value, non-repetitive	3000/3300	A
I^2t	I^2t			45000	A^2S
Tj	Operating Junction Temperature			−40～+150	°C
Tstg	Storage Temperature			−40～+125	°C
V_{ISO}	Isolation Breakdown Voltage (R. M. S.)		A.C. 1minute	2500	V
	Mounting Torque	(M6)	Recommended Value 43kgf·cm	38～48	kgf·cm
		Terminal (M5)	Recommended Value 25kgf·cm	22～28	
	Mass			170	g

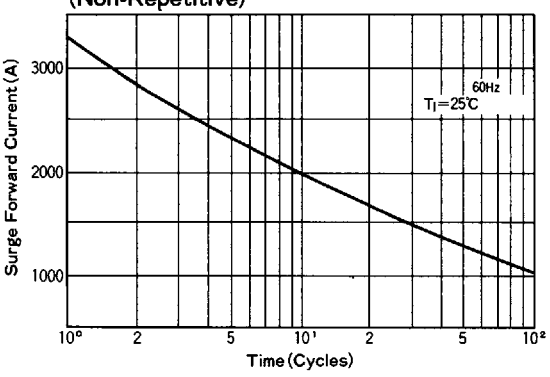
■Electrical Characteristics

Symbol	Item	Conditions	Ratings	Unit
I_{RRM}	Repetitive Peak Reverse Current, max.	at V_{DRM}, single phase, half wave, Tj=150°C	300	mA
V_{FM}	Forward Voltage Drop, max.	Foward current 200A, Inst. measurement	1.8	V
Rth(j-c)	Thermal Impedance, max.	Junction to case	0.2	°C/W
trr	Reverse Recovery Time, Max	I_F=200A, di/dt=−200A/μs	200	ns

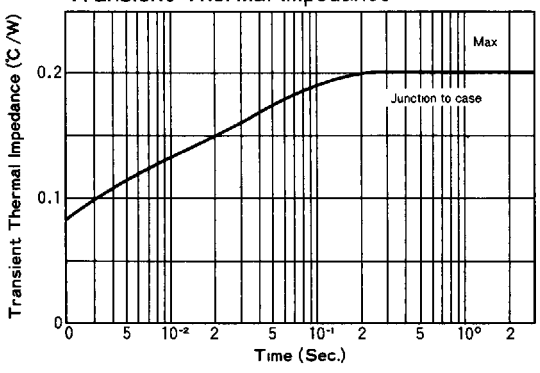
Maximum Forward Characteristics



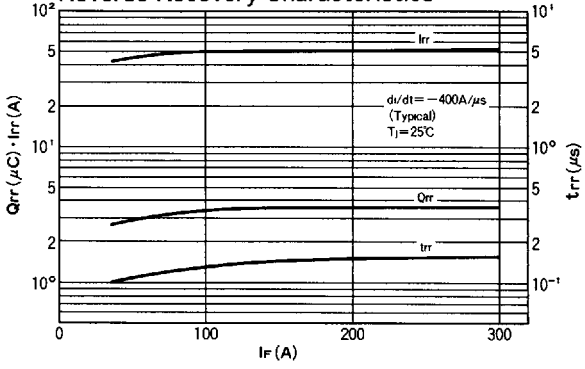
Cycle Surge Forward Current Rating (Non-Repetitive)



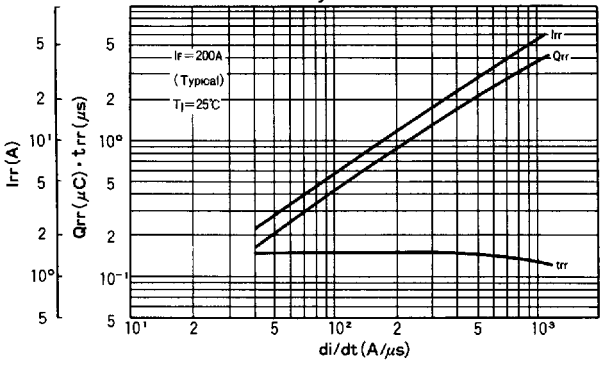
Transient Thermal Impedance



Reverse Recovery Characteristics



Reverse Recovery Characteristics



Qrr Reverse Recovery Charge
Irr Reverse Recovery Current
trr Reverse Recovery time

DIODE