DIODE MODULE (F.R.D.)

FRS200BA50/60

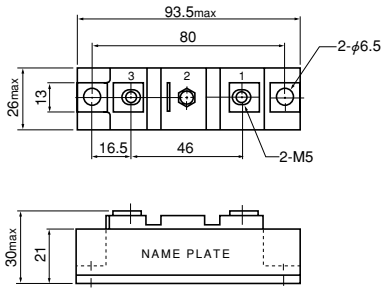
UL;E76102(M)

FRS200BA is a high speed (fast recovery) isolated diode module designed for high power switching application. **FRS200BA** is suitable for high frequency application requiring low loss and high speed control.

- High Speed t_{rr}≦100ns
- $I_{F(AV)}$ 200A
- Isolated Mounting base.
- High Surge Capability

(Applications)

Inverter Welding Power Supply
Power Supply for Telecommunication
Various Switching Power Supply.



Unit : mm

■Maximum Ratings

(Tj=25℃unless otherwise specified)

Symbol	Item	Ratings		Unit
		FRS200BA50	FRS200BA60	
V_{RRM}	Repetitive Peak Reverse Voltage	500	600	V
$V_{R(DC)}$	D.C. Reverse Voltage	400	480	V

Symbol	Item		Conditions	Ratings	Unit
$I_{F(AV)}$	Forward Current		D.C. Tc : 94℃	200	A
I_{FMS}	Surge Forward Current		½ cycle, 60Hz, peak value, non-repetitive	3300	A
I^2t	I^2t		Value for One cycle of surge curent	45000	A^2S
Tj	Operating Junction Temperature			−40 to +150	℃
Tstg	Storage Temperature			−40 to +125	℃
V_{ISO}	Isolation Breakdown Voltage (R.M.S.)		A.C. 1 minute	2500	V
	Mounting Torque	Mounting (M6)	Recommended Value 2.5-3.9 (25-40)	4.7 (48)	N·m (kgf·cm)
		Terminal (M5)	Recommended Value 1.5-2.5 (15-25)	2.7 (28)	
	Mass		Typical Value	170	g

■Electrical Characteristics

(Tj=25℃)

Symbol	Item	Conditions	Ratings			Unit
			Min.	Typ.	Max.	
I_{RRM}	Repetitive Peak Reverse Current (max.)	at V_{RRM}, Tj=150℃			200	mA
V_{FM}	Forward Voltage Drop (max.)	Foward current 200A, Inst. measurement		1.15	1.3	V
Rth(j-c)	Thermal Impedance (max.)	Junction to case			0.2	℃/W
trr	Reverse Recovery Time (max.)	I_F=200A, di/dt=−200A/μs		85	100	ns

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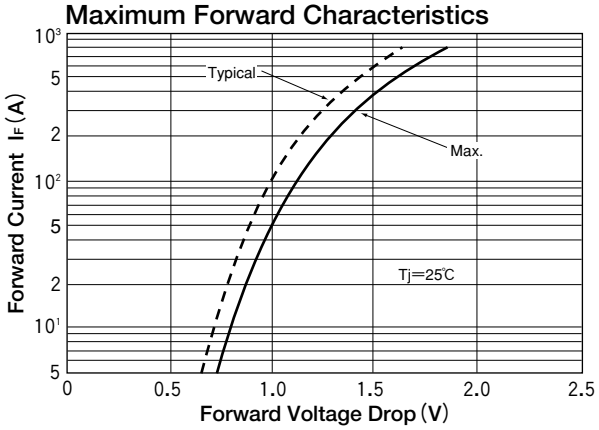
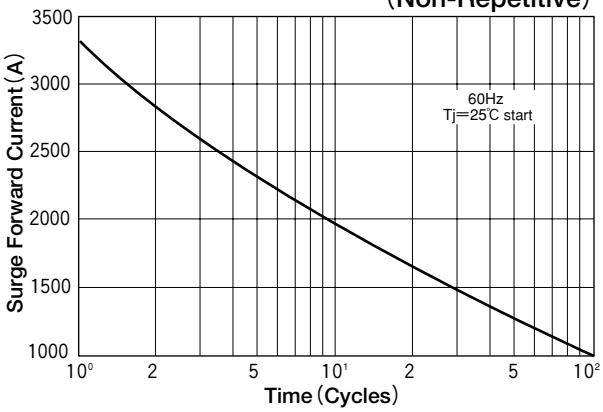
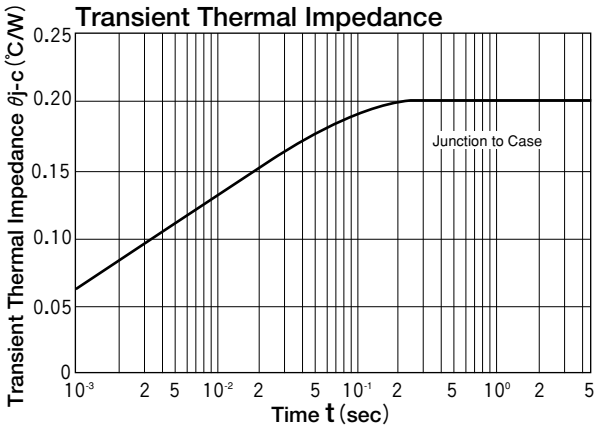
Maximum Forward Characteristics



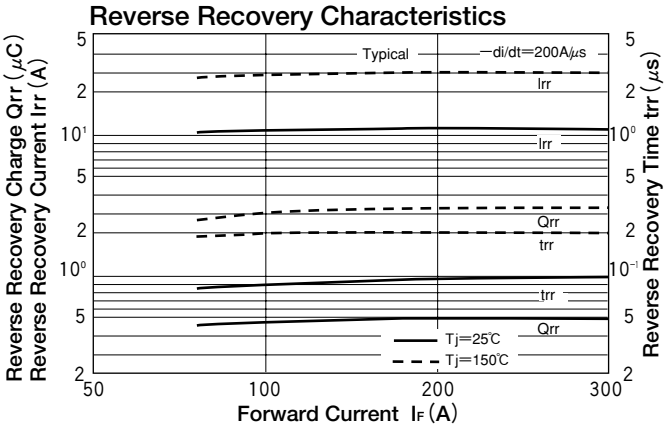
Cycle Surge Forward Current Rating (Non-Repetitive)



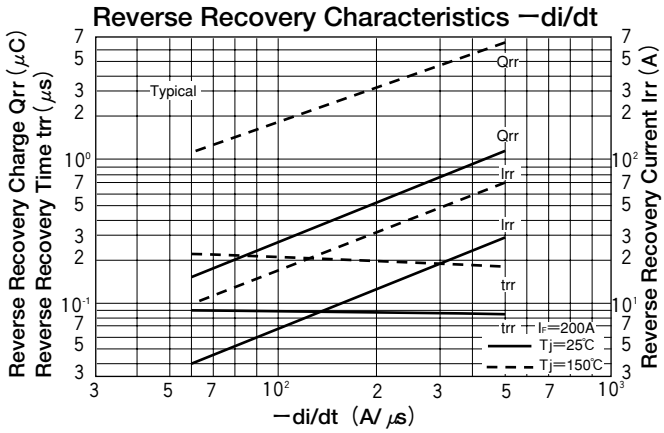
Transient Thermal Impedance



Reverse Recovery Characteristics



Reverse Recovery Characteristics —di/dt



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