

DIODE MODULE (F.R.D.)

FRS200BA50/60



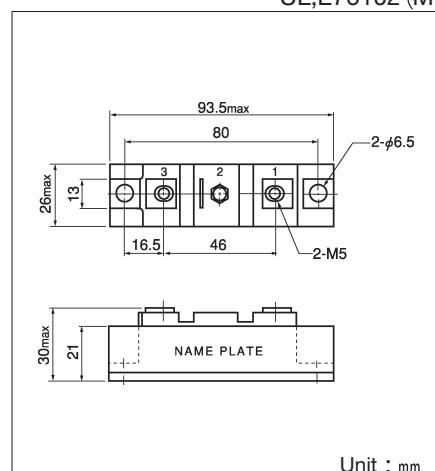
UL;E76102 (M)

FRS200BA is a high speed 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 $t_{rr} \leq 100\text{ns}$
- I_F (AV) 200A
- Isolated Mounting base.
- High Surge Capability

(Applications)

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



Maximum Ratings

(T_j=25°C)

Symbol	Item	Ratings	Unit
V _{RRM}	Repetitive Peak Reverse Voltage	600	V
V _R (DC)	D.C. Reverse Voltage	480	V

Symbol	Item		Conditions	Ratings	Unit
I _F	Forward Current		D.C. T _c : 94℃	200	A
I _{FSM}	Surge Forward Current		1/2 cycle, 60Hz, peak value, non-repetitive	3300	A
I ² _t	I ² _t		Value for One cycle of surge curent	45000	A ² S
T _j	Operating Junction Temperature			−40~+150	℃
T _{stg}	Storage Temperature			−40~+125	℃
Viso	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

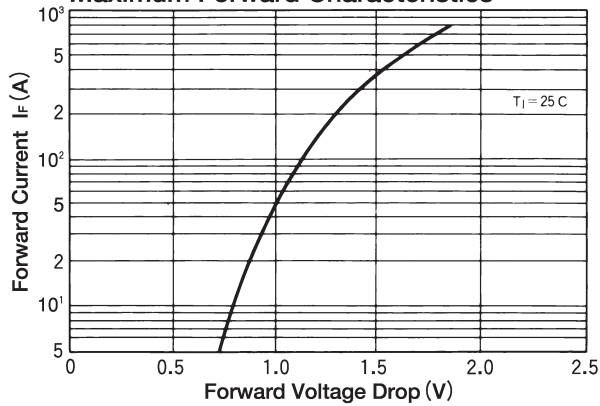
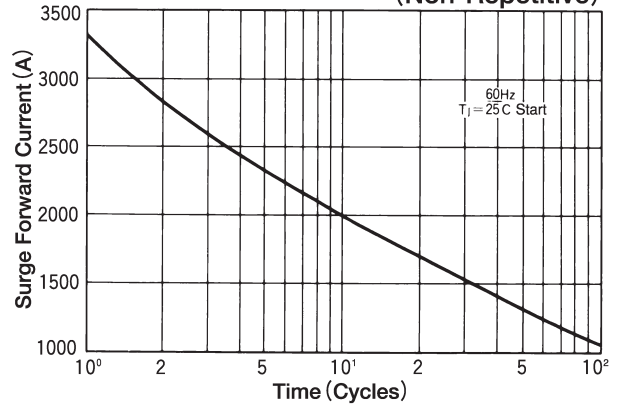
Electrical Characteristics

(T_j=25°C)

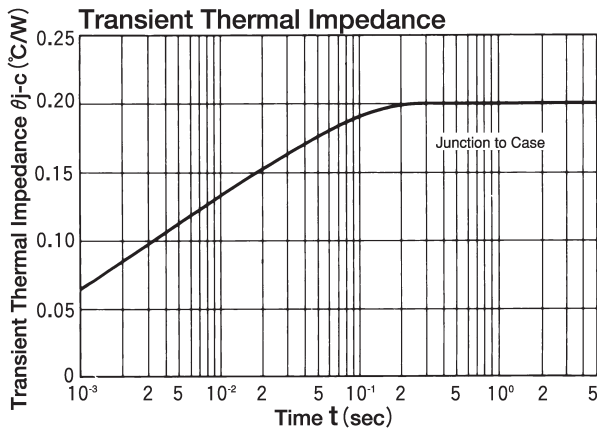
Symbol	Item	Conditions	Ratings	Unit
I _{RRM}	Repetitive Peak Reverse Current,max	at V _{RRM} , single phase, half wave.T _j =150°C	200	mA
V _{FM}	Forward Voltage Drop,max	Forward current 200A, Inst. measurement	1.3	V
R _{th} (j-c)	Thermal Impedance,max	Junction to case	0.2	°C/W
t _{rr}	Reverse Recovery Time,max	I _F =200A, di/dt = -200A/μs	100	ns



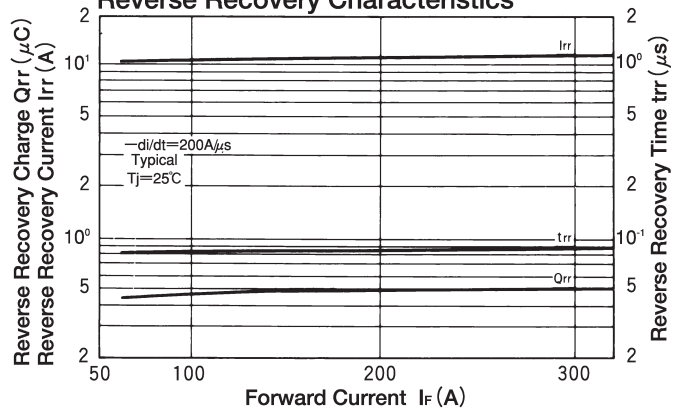
Maximum Forward Characteristics

Cycle Surge Forward Current Rating
(Non-Repetitive)

Transient Thermal Impedance



Reverse Recovery Characteristics

Reverse Recovery Characteristics $-di/dt$ 