Diode Module (F.R.D)

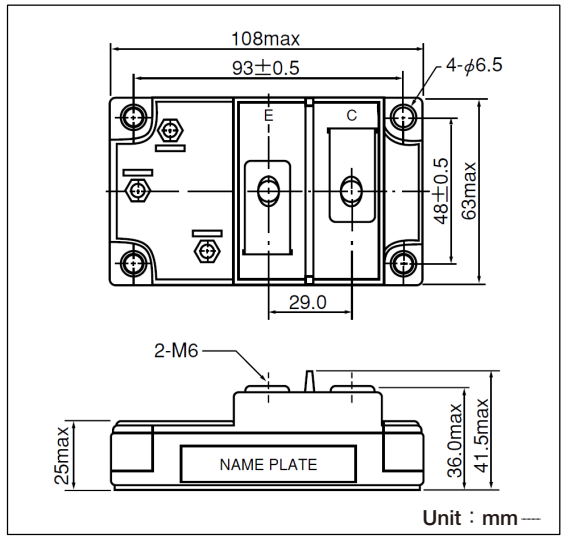
FRS400EA200

UL: E76102

《Features》
FRS400EA is a high speed (fast recovery) isolated diode module designed for high power switching application. FRS400EA is suitable for high frequency application requiring low loss and high speed control.

- High Speed trr≦700ns
- $I_{F\ (AV)}$ 400A
- Isolated Mounting base
- High Surge Capability

《Applications》
・Inverter Welding Power Supply /
Power Supply for Telecommunication /
Various Switching Power Supply



■ Maximum Ratings (Tj=25℃ unless otherwise specified)

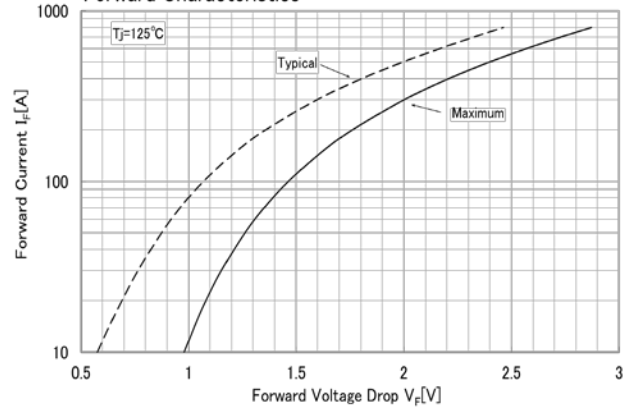
Item	Symbol	Unit	FRS400EA200
Repetitive Peak Reverse Voltage	V_{RRM}	V	2000
D.C. Reverse Voltage	$V_{R(DC)}$	V	1800

Item		Symbol	Unit	Ratings	Conditions
Forward Current		I_F	A	400	D.C., Tc=79℃
Surge Forward Current		I_{FSM}	A	5000	1/2cycle, 60Hz, Peak value, non-repetitive
I^2t(for fusing)		I^2t	A^2s	104000	Value for one cycle of surge current
Operating Junction Temperature		T_j	℃	−40 to +150	
Storage Temperature		T_{stg}	℃	−40 to +125	
Isolation Breakdown Voltage (R.M.S.)		V_{ISO}	V	2500	A.C., 1 minute
Mounting Torque	Mounting M6		N・m (kgf・cm)	4.7(48)	Recommended Value 2.5 to 3.9 (25 to 40)
	Terminal M6			4.7(48)	Recommended Value 2.5 to 3.9 (25 to 40)
Mass			g	460	Typical value

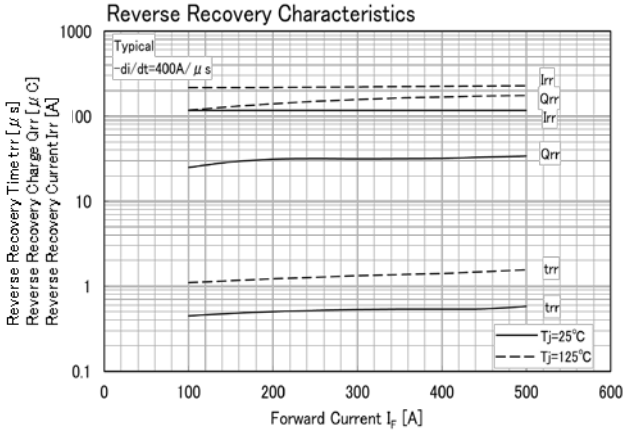
■ Electrical Characteristics (Tj=25℃ unless otherwise specified)

Item	Symbol	Unit	Ratings			Conditions
			Min.	Typ.	Max.	
Repetitive Peak Reverse Current	I_{RRM}	mA			100	V_R=V_{RRM}, T_j=150℃
Forward Voltage Drop	V_{FM}	V			2.2	I_F=400A, Tj=125℃ Inst. measurement
Reverse Recovery Time	t_{rr}	ns			700	I_F=400A, −di/dt=400A/μs
Thermal Resistance	R_{th}	℃/W			0.08	Per Module

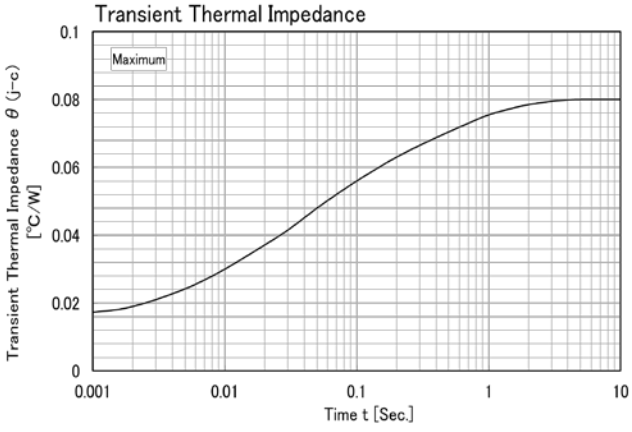
Forward Characteristics



Reverse Recovery Characteristics



Transient Thermal Impedance



Reverse Recovery Characteristics