

# FRS400CA120

UL; E76102

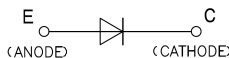
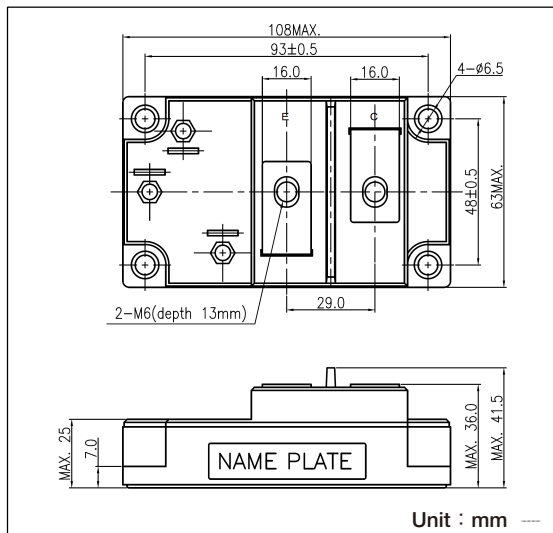
《Features》

FRS400CA is a high speed (fast recovery) isolated diode module designed for high power switching application. FRS400CA is suitable for high frequency application requiring low loss and high speed control.

- High Speed  $t_{rr} \leq 400\text{ns}$
- $I_F$  (AV) 400A
- Isolated Mounting base.
- High Surge Capability

《Applications》

- Inverter Welding Power Supply /
- Power Supply for Telecommunication /
- Various Switching Power Supply



Unit : mm

■ Maximum Ratings (T<sub>j</sub>=25°C unless otherwise specified)

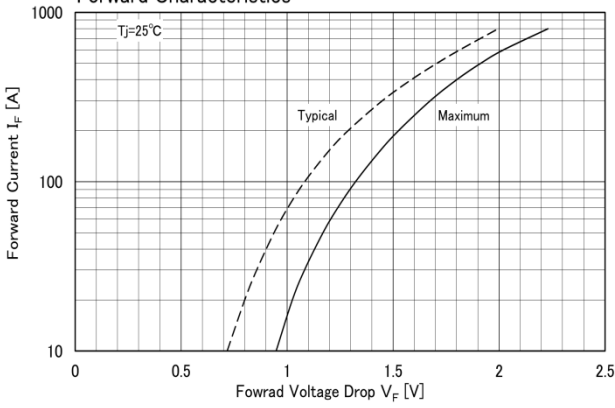
Item	Symbol	Unit	FRS400CA120
Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	V	1200
Reverse D.C. Voltage	V <sub>R(DC)</sub>	V	960

Item	Symbol	Unit	Ratings	Conditions
Forward Current	I <sub>F</sub>	A	400	D.C., T <sub>C</sub> =78°C
Surge forward current	I <sub>FSM</sub>	A	4000	1/2cycle, 60Hz, peak value, non-repetitive
I <sup>2</sup> t (for fusing)	I <sup>2</sup> t	A <sup>2</sup> s	66640	Value for one cycle of surge current
Operating Junction Temperature	T <sub>j</sub>	°C	-40 to +150	
Storage Temperature	T <sub>stg</sub>	°C	-40 to +125	
Isolation Voltage (R.M.S.)	V <sub>ISO</sub>	V	2500	A.C., 1minute
Mounting Torque	Mounting M6	N·m (kgf·cm)	4.7(48)	Recommended Value 2.5 to 3.9 (25 to 40)
	Terminal M6			
Mass		g	460	Typical value

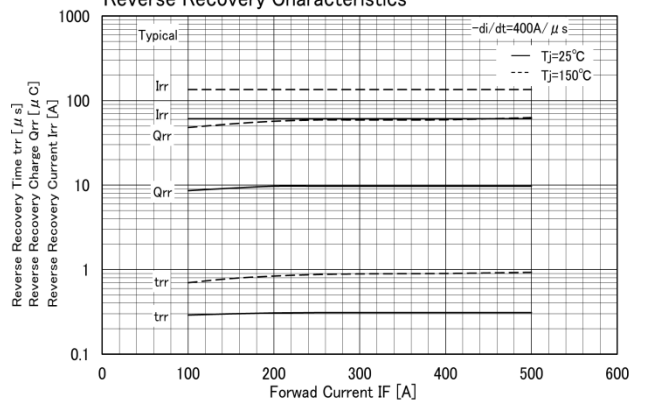
■ Electrical Characteristics (T<sub>j</sub>=25°C unless otherwise specified)

Item	Symbol	Unit	Ratings			Conditions
			Min.	Typ.	Max.	
Repetitive Peak Reverse Current	I <sub>RRM</sub>	mA			20	V <sub>R</sub> =V <sub>RRM</sub> , T <sub>j</sub> =150°C
Forward Voltage Drop	V <sub>FM</sub>	V			1.8	I <sub>F</sub> =400A, Inst. measurement
Reverse Recovery Time	t <sub>rr</sub>	ns			400	I <sub>F</sub> =400A, -di/dt=400A/μs
Thermal Resistance (Junction to case)	R <sub>th(j-c)</sub>	°C/W			0.1	Per a Module

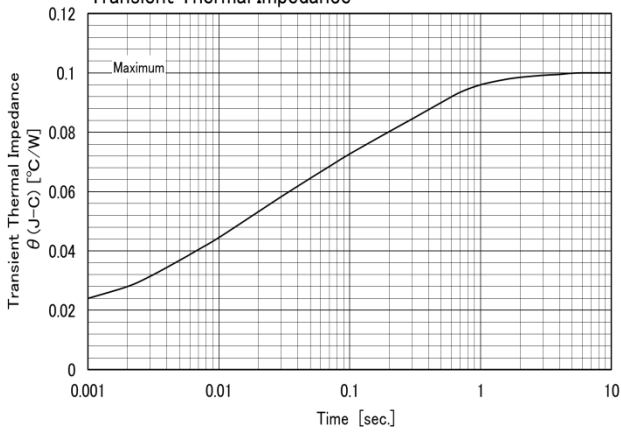
Forward Characteristics



Reverse Recovery Characteristics



Transient Thermal Impedance



Reverse Recovery Characteristics

