

# DIODE MODULE (F.R.D.)

# FRG25CA120

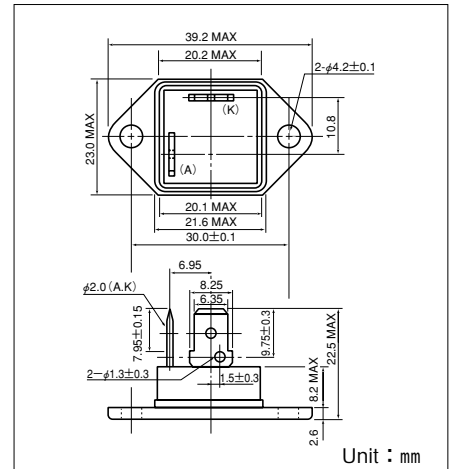
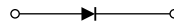
UL;E76102(M)

FRG25CA120 is a high speed (fast recovery) isolated diode module designed for high power switching application. FRG25CA120 is suitable for high frequency application requiring low loss and high speed control.

- High Speed  $t_{rr} \leq 200\text{ns}$
- $I_{F(AV)}$  25A
- Isolated Mounting base.
- High Surge Capability

**(Applications)**

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



**Maximum Ratings**

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

Symbol	Item	Ratings	Unit
		FRG25CA120	
V <sub>RRM</sub>	Repetitive Peak Reverse Voltage	1200	V
V <sub>R(DC)</sub>	D.C. Reverse Voltage	960	V

Symbol	Item	Conditions	Ratings	Unit
I <sub>F(AV)</sub>	Forward Current	D.C. T <sub>c</sub> :78°C	25	A
I <sub>FMS</sub>	Surge Forward Current	1/2 cycle, 60Hz, peak value, non-repetitive	400	A
I <sup>2</sup> t	I <sup>2</sup> t	Value for one cycle surge current	660	A <sup>2</sup> S
T <sub>j</sub>	Operating Junction Temperature		-40 to +150	°C
T <sub>stg</sub>	Storage Temperature		-40 to +125	°C
V <sub>iso</sub>	Isolation Breakdown Voltage (R.M.S.)	A.C. 1 minute	2500	V
	Mounting Torque	Mounting M4	Recommended Value 1.0-1.4 (10-14)	1.5 (15) N·m (kgf·cm)
	Mass	Typical Value	23	g

**Electrical Characteristics**

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

Symbol	Item	Conditions	Ratings	Unit
I <sub>RRM</sub>	Repetitive Peak Reverse Current (max.)	T <sub>j</sub> =150°C at V <sub>RRM</sub> =1200V	1	mA
V <sub>FM</sub>	Forward Voltage Drop (max.)	T <sub>j</sub> =25°C I <sub>F</sub> =25A, Inst. measurement	1.80	V
t <sub>rr</sub>	Reverse Recovery Time (max.)	I <sub>F</sub> =25A, -di/dt=100A/μs	200	ns
R <sub>th(j-c)</sub>	Thermal Impedance (max.)	Junction to case	1.6	°C/W

