

DIODE MODULE (F.R.D.)

FRG25CA120

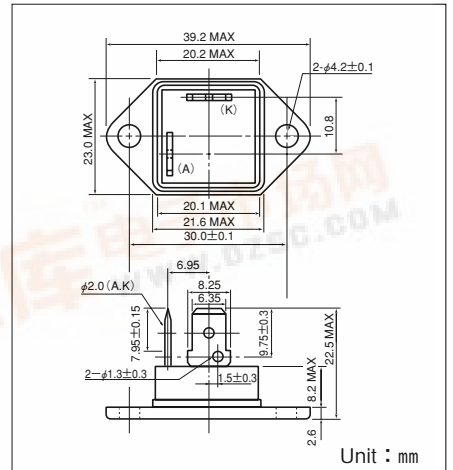
UL:E76102(M)

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.



(Tj=25°C unless otherwise specified)

Maximum Ratings

Symbol	Item	Ratings		Unit
		FRG25CA120		
V _{RRM}	Repetitive Peak Reverse Voltage	1200		V
V _{R(DC)}	D.C. Reverse Voltage	960		V

Symbol	Item	Conditions	Ratings	Unit
I _{F(AV)}	Forward Current	D.C. Tc:78°C	25	A
I _{FMS}	Surge Forward Current	1/2 cycle, 60Hz, peak value, non-repetitive	400	A
I ² t	I ² t	Value for one cycle surge current	660	A ² S
T _j	Operating Junction Temperature		-40 to +150	°C
T _{stg}	Storage Temperature		-40 to +125	°C
V _{iso}	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

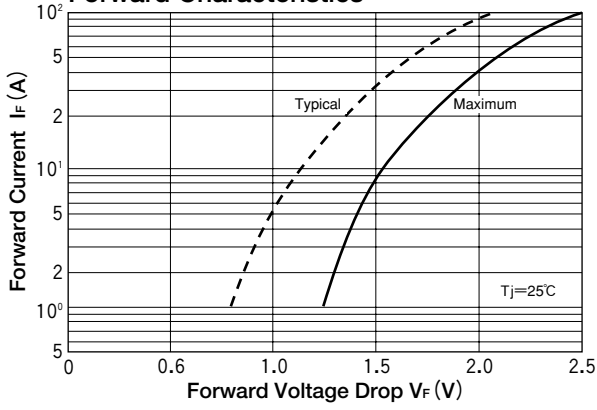
Electrical Characteristics

(Tj=25°C unless otherwise specified)

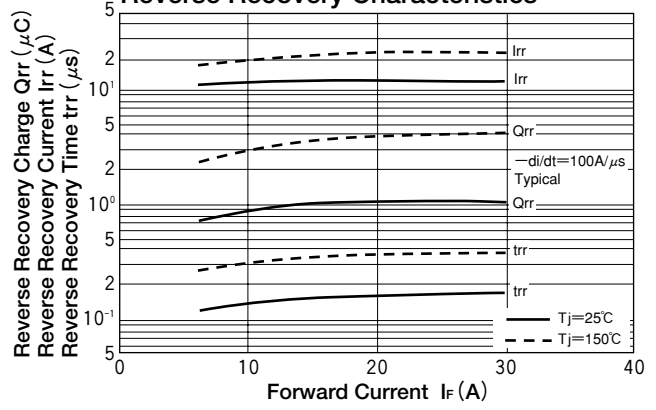
Symbol	Item	Conditions	Ratings	Unit
I _{RRM}	Repetitive Peak Reverse Current (max.)	Tj=150°C at V _{RRM} =1200V	1	mA
V _{FM}	Forward Voltage Drop (max.)	Tj=25°C I _F =25A, Inst. measurement	1.80	V
t _{rr}	Reverse Recovery Time (max.)	I _F =25A, -di/dt=100A/μs	200	ns
R _{th(j-c)}	Thermal Impedance (max.)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



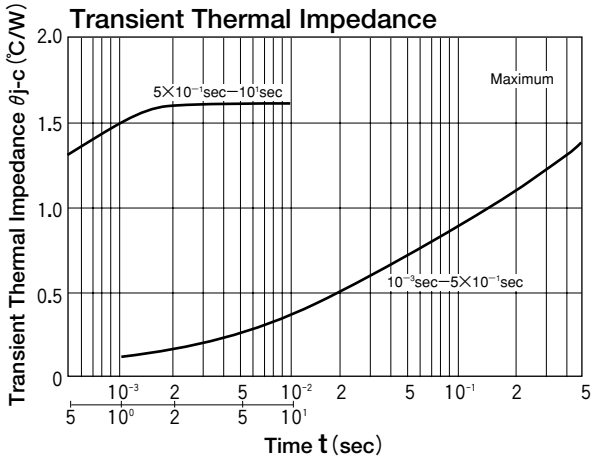
Forward Characteristics



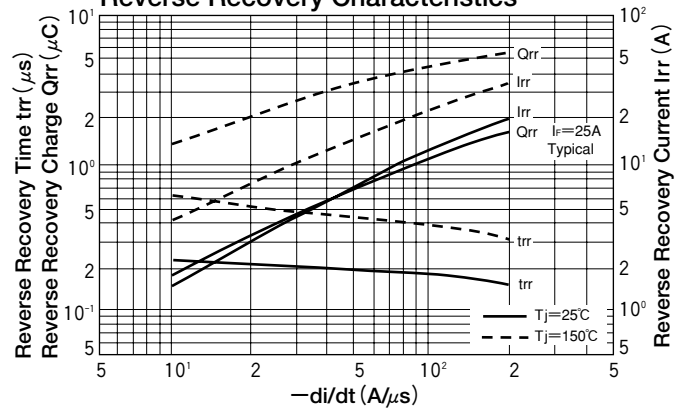
Reverse Recovery Characteristics



Transient Thermal Impedance



Reverse Recovery Characteristics



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