DIODE MODULE (F.R.D.)

FRG25CA120

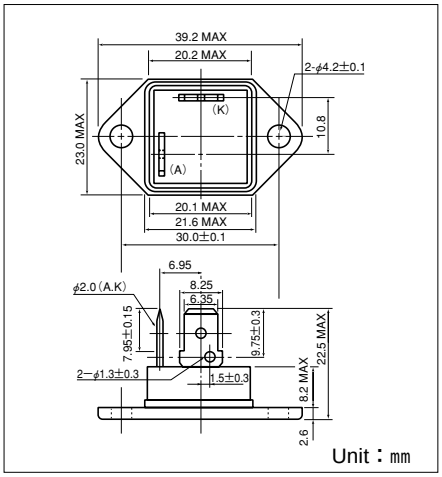
UL;E76102(M)

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}≦200ns
- $I_{F(AV)}$ 25A
- Isolated Mounting base.
- High Surge Capability

(Applications)

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



■Maximum Ratings

(Tj=25℃ unless otherwise specified)

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℃	25	A
I_{FMS}	Surge Forward Current		1/2 cycle, 60Hz, peak value, non-repetitive	400	A
I^2t	I^2t		Value for one cycle surge current	660	A^2S
Tj	Operating Junction Temperature			−40 to +150	℃
Tstg	Storage Temperature			−40 to +125	℃
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℃ unless otherwise specified)

Symbol	Item	Conditions	Ratings	Unit
I_{RRM}	Repetitive Peak Reverse Current (max.)	Tj=150℃ at V_{RRM}=1200V	1	mA
V_{FM}	Forward Voltage Drop (max.)	Tj=25℃ I_F=25A, Inst. measurement	1.80	V
trr	Reverse Recovery Time (max.)	I_F=25A, −di/dt=100A/μs	200	ns
Rth(j-c)	Thermal Impedance (max.)	Junction to case	1.6	℃/W

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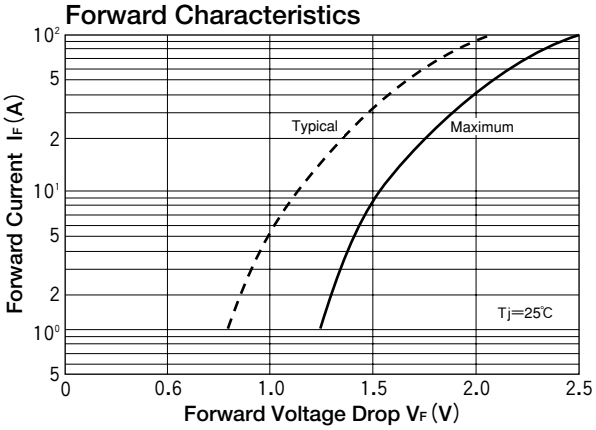
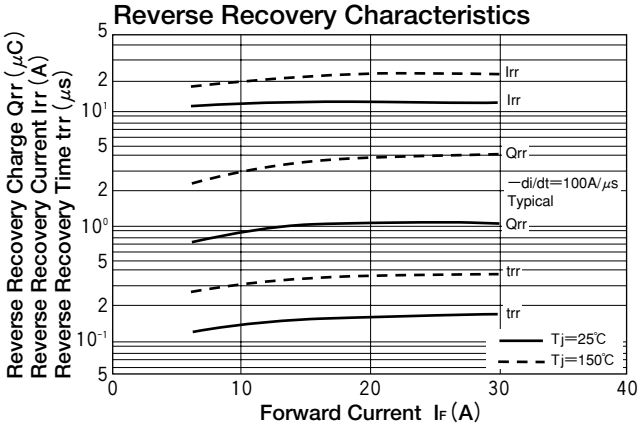
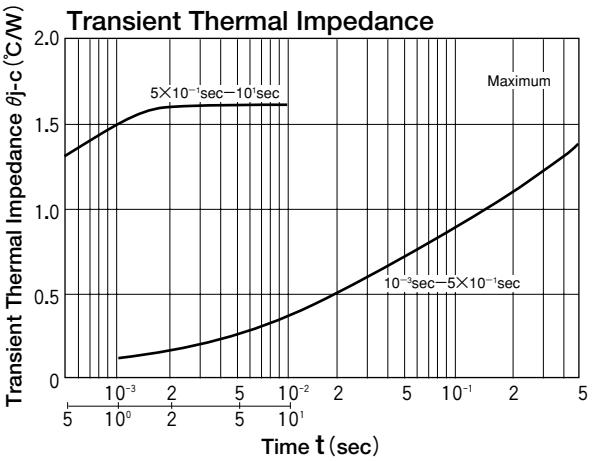
Forward Characteristics



Reverse Recovery Characteristics



Transient Thermal Impedance



Reverse Recovery Characteristics