

DIODE MODULE (F.R.D.)

FRG25CA120

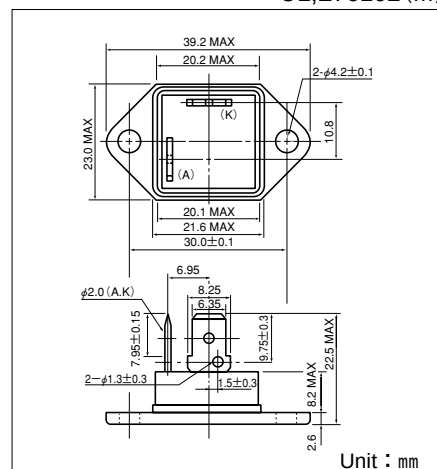
UL;E76102 (M)

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

($T_j = 25^\circ\text{C}$ 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. $T_c: 78^\circ\text{C}$	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
T_j	Operating Junction Temperature			-40 to $+150$	$^\circ\text{C}$
T_{stg}	Storage Temperature			-40 to $+125$	$^\circ\text{C}$
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)	$\text{N}\cdot\text{m}$ ($\text{kgf}\cdot\text{cm}$)
	Mass		Typical Value	23	g

Electrical Characteristics

($T_j = 25^\circ\text{C}$ unless otherwise specified)

Symbol	Item	Conditions	Ratings	Unit
I_{RRM}	Repetitive Peak Reverse Current (max.)	$T_j = 150^\circ\text{C}$ at $V_{RRM} = 1200\text{V}$	1	mA
V_{FM}	Forward Voltage Drop (max.)	$T_j = 25^\circ\text{C}$ $I_F = 25\text{A}$, Inst. measurement	1.80	V
t_{rr}	Reverse Recovery Time (max.)	$I_F = 25\text{A}$, $-di/dt = 100\text{A}/\mu\text{s}$	200	ns
$R_{th(j-c)}$	Thermal Impedance (max.)	Junction to case	1.6	$^\circ\text{C}/\text{W}$

