

DIODE MODULE (F.R.D.)

FRG25BA60

TOP



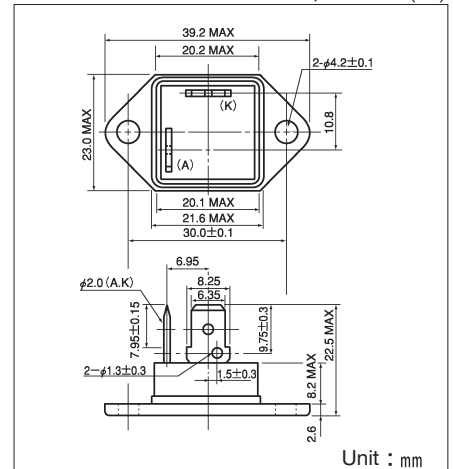
UL;E76102 (M)

FRG25BA60 is a high speed isolated diode module designed for high power switching application. FRG25BA60 is suitable for high frequency application requiring low loss and high speed control.

- High Speed $t_{rr} \leq 100\text{ns}$
- $I_{F(AV)}$ 25A
- Isolated Mounting base.
- High Surge Capability

(Applications)

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



Maximum Ratings

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

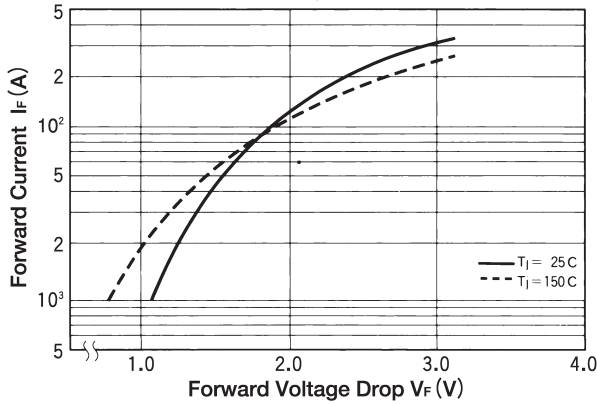
Symbol	Item	Ratings	Unit
		FRG25BA60	
V_{RRM}	Repetitive Peak Reverse Voltage	600	V
$V_{R(DC)}$	D.C. Reverse Voltage	480	V

Symbol	Item	Conditions	Ratings	Unit
I_F	Forward Current	D.C. $T_c = 94^\circ\text{C}$	25	A
I_{FSM}	Surge Forward Current	$1/2$ cycle, 60Hz, peak value, non-repetitive	450	A
I^2t	I^2t	Value for One cycle of surge current	840	A^2S
T_j	Operating Junction Temperature		$-40 \sim +150$	$^\circ\text{C}$
T_{stg}	Storage Temperature		$-40 \sim +125$	$^\circ\text{C}$
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)	Nm ($\text{kgf}\cdot\text{cm}$)
	Mass	Typical Value	23	g

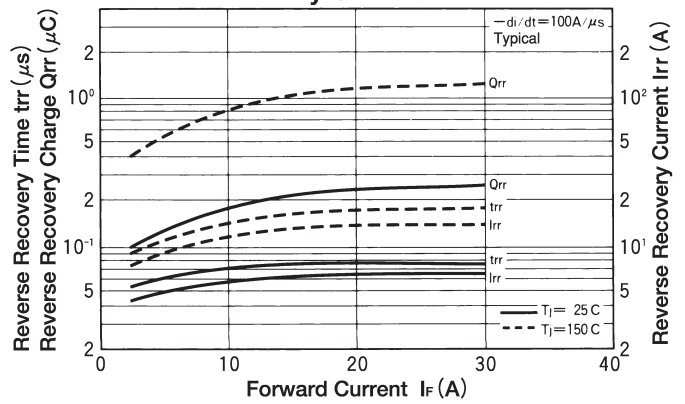
Electrical Characteristics

Symbol	Item	Conditions	Ratings			Unit
			Min.	Typ.	Max.	
I_{RRM}	Repetitive Peak Reverse Current	$T_j = 150^\circ\text{C}$, at $V_{RRM} = 600\text{V}$		25	30	mA
V_{FM}	Forward Voltage Drop	$T_j = 25^\circ\text{C}$, $I_F = 25\text{A}$, Inst. measurement		1.20	1.30	V
t_{rr}	Reverse Recovery Time	$I_F = 25\text{A}$, $di/dt = 100\text{A}/\mu\text{s}$		80	100	ns
$R_{th(j-c)}$	Thermal Impedance	Junction to case			1.6	$^\circ\text{C}/\text{W}$

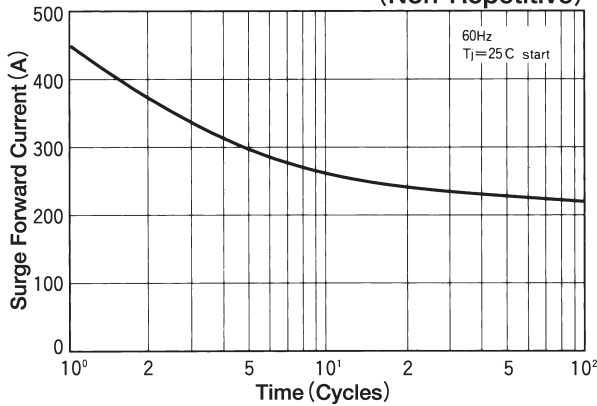
Maximum Forward Characteristics



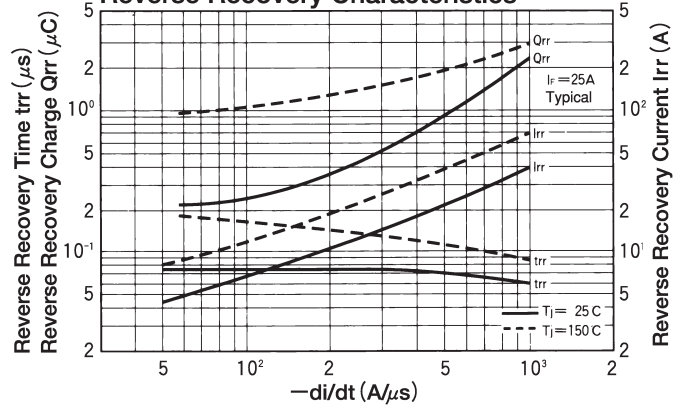
Reverse Recovery Characteristics



Cycle Surge Forward Current Rating (Non-Repetitive)



Reverse Recovery Characteristics



Transient Thermal Impedance

