

# DIODE MODULE (F.R.D.)

# FRG25BA60

TOP



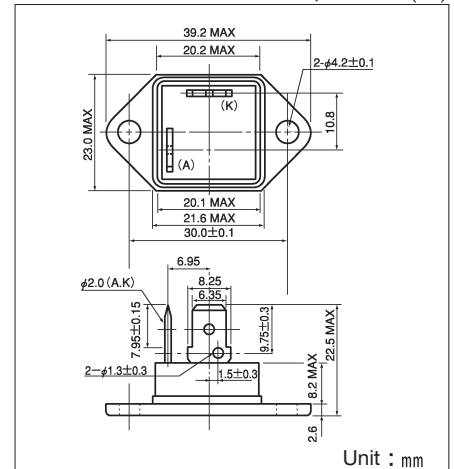
UL;E76102 (M)

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<sub>j</sub>=25°C)

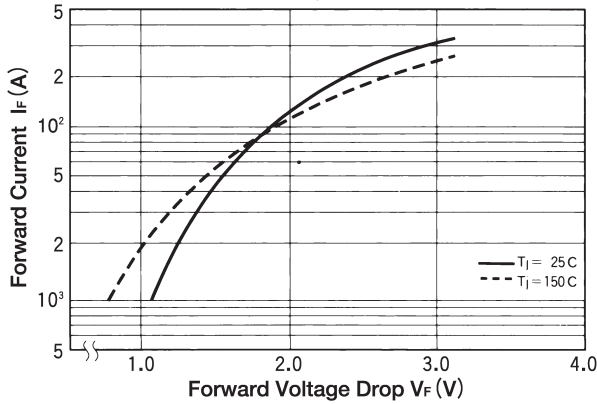
Symbol	Item	Ratings	Unit
		FRG25BA60	
V <sub>RRM</sub>	Repetitive Peak Reverse Voltage	600	V
V <sub>R(DC)</sub>	D.C. Reverse Voltage	480	V

Symbol	Item	Conditions	Ratings	Unit
I <sub>F</sub>	Forward Current	D.C. T <sub>c</sub> =94°C	25	A
I <sub>FSM</sub>	Surge Forward Current	1/2 cycle, 60Hz, peak value, non-repetitive	450	A
I <sup>2</sup> t	I <sup>2</sup> t	Value for One cycle of surge current	840	A <sup>2</sup> S
T <sub>j</sub>	Operating Junction Temperature		-40~+150	°C
T <sub>stg</sub>	Storage Temperature		-40~+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)	Nm (kgf·cm)
	Mass	Typical Value	23	g

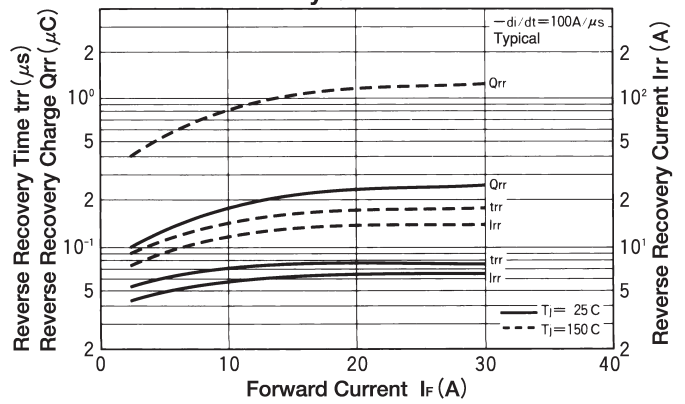
### Electrical Characteristics

Symbol	Item	Conditions	Ratings			Unit
			Min.	Typ.	Max.	
I <sub>RRM</sub>	Repetitive Peak Reverse Current	T <sub>j</sub> =150°C, at V <sub>RRM</sub> =600V		25	30	mA
V <sub>FM</sub>	Forward Voltage Drop	T <sub>j</sub> =25°C, I <sub>F</sub> =25A, Inst. measurement		1.20	1.30	V
t <sub>rr</sub>	Reverse Recovery Time	I <sub>F</sub> =25A, di/dt=100A/μs		80	100	ns
R <sub>th(j-c)</sub>	Thermal Impedance	Junction to case			1.6	°C/W

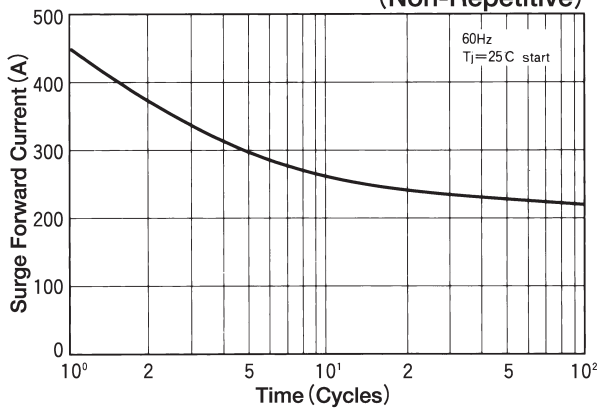
### Maximum Forward Characteristics



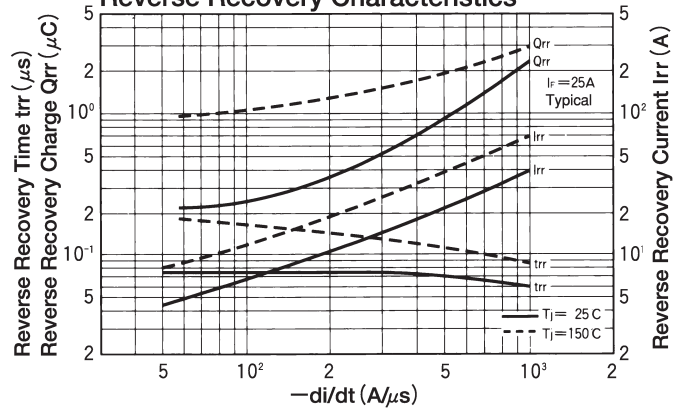
### Reverse Recovery Characteristics



### Cycle Surge Forward Current Rating (Non-Repetitive)



### Reverse Recovery Characteristics



### Transient Thermal Impedance

