

# DIODE MODULE (F.R.D.)

# FRS150BA50

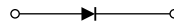
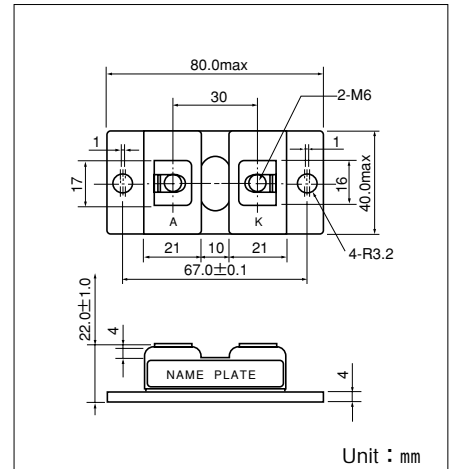
UL;E76102(M)

FRS150BA50 is a high speed (fast recovery) isolated diode module designed for high power switching application. FRS150BA50 is suitable for high frequency application requiring low loss and high speed control.

- High Speed  $t_{rr} \leq 200\text{ns}$
- $I_{F(AV)}$  150A
- Isolated Mounting base.
- High Surge Capability

**(Applications)**

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



**Maximum Ratings**

(Tj=25°C unless otherwise specified)

Symbol	Item	Ratings	Unit
		FRS150BA50	
VRRM	Repetitive Peak Reverse Voltage	500	V
VR(DC)	D.C. Reverse Voltage	400	V

Symbol	Item	Conditions	Ratings	Unit	
IF(AV)	Forward Current	D.C. Tc : 85°C	150	A	
IFMS	Surge Forward Current	1/2 cycle, 60Hz, peak value, non-repetitive	3000	A	
I²t	I²t	Value for one cycle of surge current	37500	A²S	
Tj	Operating Junction Temperature		-40 to +150	°C	
Tstg	Storage Temperature		-40 to +125	°C	
Viso	Isolation Breakdown Voltage (R.M.S.)	A.C. 1 minute	2500	V	
	Mounting Torque	Mounting (M6)	Recommended Value 2.5-3.9 (25-40)	4.7 (48)	N·m (kgf·cm)
		Terminal (M6)	Recommended Value 2.5-3.9 (25-40)	4.7 (48)	
	Mass	Typical Value	170	g	

**Electrical Characteristics**

Symbol	Item	Conditions	Ratings			Unit
			Min.	Typ.	Max.	
IRRM	Repetitive Peak Reverse Current	VRRM=500V, Tj=125°C			150	mA
VFM	Forward Voltage Drop	IF=150A, Inst. measurement			1.30	V
trr	Reverse Recovery Time	IF=150A, -di/dt=150A/μs			200	ns
Rth(j-c)	Thermal Impedance	Junction to case			0.33	°C/W

