

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} 200ns

$I_F (AV)$ 150A

Isolated Mounting base.

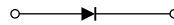
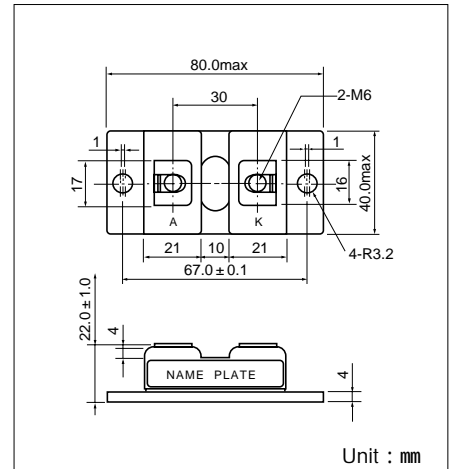
High Surge Capability

(Applications)

Inverter Welding Power Supply

Power Supply for Telecommunication

Various Switching Power Supply.



Maximum Ratings

($T_j = 25$ unless otherwise specified)

Symbol	Item	Ratings		Unit
		FRS150BA50		
V_{RRM}	Repetitive Peak Reverse Voltage	500		V
$V_{R(DC)}$	D.C. Reverse Voltage	400		V

Symbol	Item	Conditions	Ratings	Unit
$I_{F(AV)}$	Forward Current	D.C. $T_c : 85$	150	A
I_{FMS}	Surge Forward Current	$1/2$ cycle, 60Hz, peak value, non-repetitive	3000	A
I^2t	I^2t	Value for one cycle of surge current	37500	A ² S
T_j	Operating Junction Temperature		- 40 to + 150	
T_{stg}	Storage Temperature		- 40 to + 125	
V_{iso}	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
		Terminal (M6)	Recommended Value 2.5-3.9 (25-40)	4.7 (48) (kgf·B)
	Mass	Typical Value	170	g

Electrical Characteristics

Symbol	Item	Conditions	Ratings			Unit
			Min.	Typ.	Max.	
I_{RRM}	Repetitive Peak Reverse Current	$V_{RRM} = 500V$, $T_j = 125$			150	mA
V_{FM}	Forward Voltage Drop	$I_F = 150A$, Inst. measurement			1.30	V
t_{rr}	Reverse Recovery Time	$I_F = 150A$, $- di/dt = 150A/\mu s$			200	ns
$R_{th(j-c)}$	Thermal Impedance	Junction to case			0.33	/W

