MIMMF200S120B

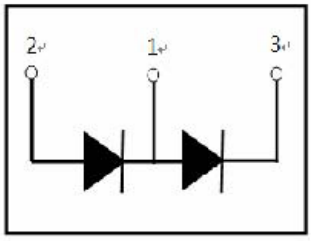
1200V 200A FRED Module
RoHS Compliant

PRODUCT FEATURES

- Ultrafast Reverse Recovery Time
- Soft Reverse Recovery Characteristics
- Low Reverse Recovery Loss
- Low Forward Voltage
- High Surge Current Capability
- Low Inductance Package

APPLICATIONS

- Inversion Welder
- Uninterruptible Power Supply (UPS)
- Plating Power Supply
- Ultrasonic Cleaner and Welder
- Converter & Chopper
- Power Factor Correction (PFC) Circuit



ABSOLUTE MAXIMUM RATINGS

T_C=25°C unless otherwise specified

Symbol	Parameter	Test Conditions	Max.	Unit
V_{RRM}	Repetitive Reverse Voltage		1200	V
$I_{F(AV)}$	Average Forward Current	T_C=95°C Rectangular, d=0.5	200	A
$I_{F(RMS)}$	RMS Forward Current	T_C=95°C Rectangular, d=0.5	290	A
I_{FSM}	Non-Repetitive Surge Forward Current	T_J=45°C, t=10ms, 50Hz, Sine	1860	A
		T_J=45°C,t=8.3ms, 60Hz, Sine	1960	A
I^2t	I^2t (For Fusing)	T_J=45°C, t=10ms, 50Hz, Sine	17300	A^2s
		T_J=45°C,t=8.3ms, 60Hz, Sine	16010	A^2s
P_D	Power Dissipation		568	W
T_J	Junction Temperature		-40 to +150	°C
T_{STG}	Storage Temperature Range		-40 to +125	°C

ELECTRICAL AND THERMAL CHARACTERISTICS

T_C=25°C unless otherwise specified

Symbol	Parameter	Test Conditions		Min.	Typ.	Max.	Unit
I_{RM}	Reverse Leakage Current	V_R=1200V		--	--	300	μA
		V_R=1200V, T_J=125°C		--	--	30	mA
V_F	Forward Voltage	I_F=200A		--	--	2.40	V
		I_F=200A, T_J=125°C		--	--	2.2	V
t_{rr}	Reverse Recovery Time	I_F=200A, V_R=600V di_F/dt=-200A/μs	T_J=25°C	--	230	--	ns
I_{RRM}	Max. Reverse Recovery Current			--	21	--	A
t_{rr}	Reverse Recovery Time		T_J=125°C	--	470	--	ns
I_{RRM}	Max. Reverse Recovery Current			--	37	--	A
$R_{\theta JC}$	Thermal Resistance	Junction-to-Case		--	--	0.22	°C /W

MECHANICAL CHARACTERISTICS

Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
Torque	Module-to-Sink	Recommended（M6）	3		5	N· m
Torque	Module Electrodes	Recommended（M6）	3		5	N· m

FS Package Outline (Dimensions in mm)