

FRED Modules

V_{RRM} 400V

I_{FAV} 400 A

Applications

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

Features

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



Circuit



Maximum Ratings

Symbol	Conditions	Values	Units
V _R		400	V
V _{RRM}		400	V
I _{F(AV)}	T _C =125°C, Per Diode	200	A
	T _C =125°C, Per Module	400	A
I _{F(RMS)}	T _C =125°C, Per Diode	285	A
I _{FSM}	1/2 Cycle , 50Hz, Sine	6000	A
	1/2 Cycle , 60Hz, Sine	6580	A
I ² t	T _J =45°C, t=10ms, 50Hz, Sine	180000	A ² s
P _D		2000	W
T _J		-40 to +150	°C
T _{STG}		-40 to +125	°C
Torque	Recommended M6	3 4.7	N·m
Torque	Recommended M6	3 4.7	N·m
Weight		92	g

Thermal Characteristics

Symbol	Conditions	Values	Units
R _{th(j-c)}	Per Module	0.06	/W



Electrical Characteristics

Performance Curves

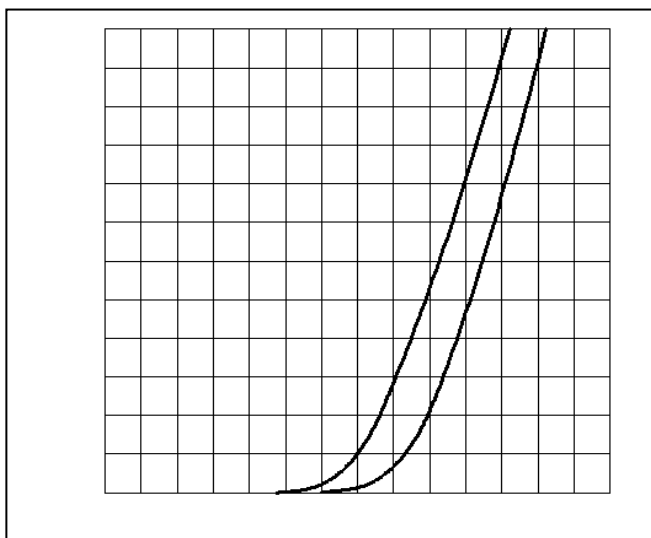


Fig1. Forward Voltage Drop vs Forward Current

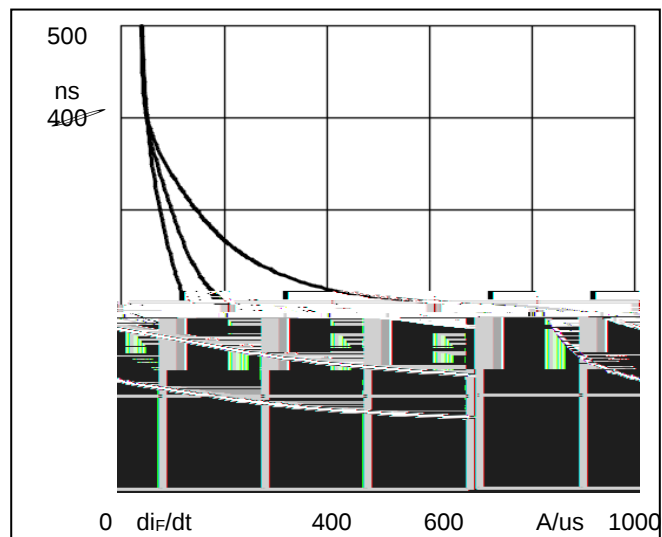


Fig2. Reverse Recovery Time vs di_F/dt

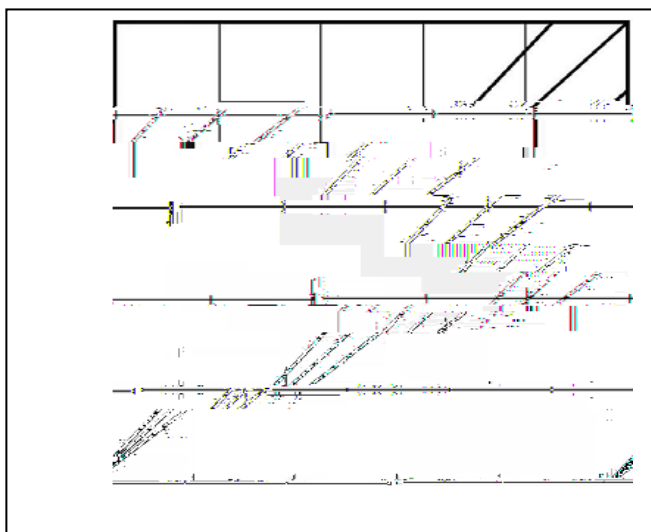


Fig3. Reverse Recovery Current vs di_F/dt

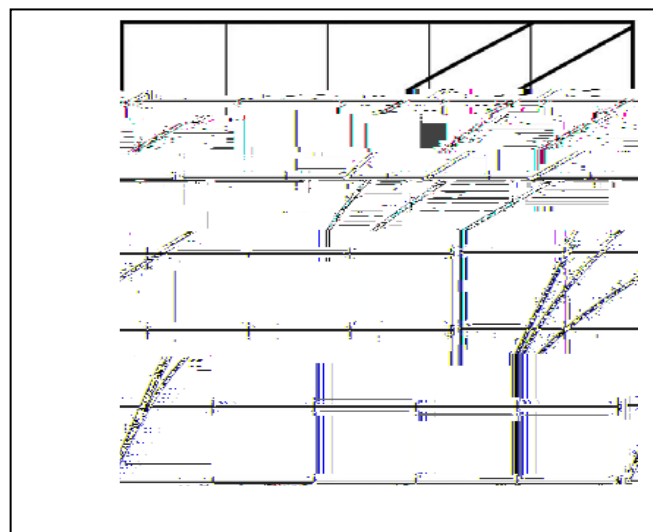


Fig4. Reverse Recovery Charge vs di_F/dt



Package Outline Information