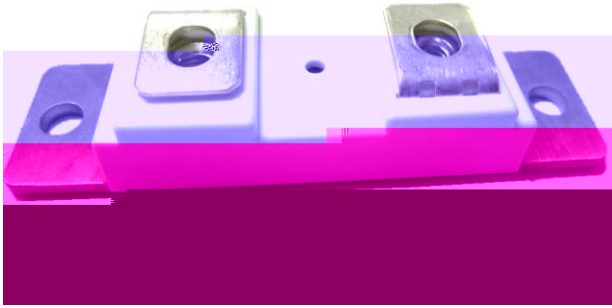


FRED Modules

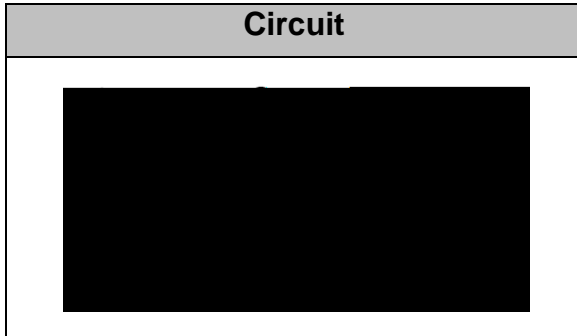


VRRM 400V

IFAV 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

Maximum Ratings

Symbol	Conditions	Values	Units
V_R		400	V
V_{RRM}		400	V
$I_{F(AV)}$	$T_C=125^{\circ}\text{C}$, Per Diode	200	A
	$T_C=125^{\circ}\text{C}$, Per Module	400	A
$I_{F(RMS)}$	$T_C=125^{\circ}\text{C}$, Per Diode	285	A
I_{FSM}	1/2 Cycle , 50Hz, Sine	6000	A
	1/2 Cycle , 60Hz, Sine	6580	A
I^2t	$T_J=45^{\circ}\text{C}$, $t=10\text{ms}$, 50Hz, Sine	180000	A^2s
P_D		2000	W
T_J		-40 to +150	$^{\circ}\text{C}$
T_{STG}		-40 to +125	$^{\circ}\text{C}$
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	$^{\circ}\text{C}/\text{W}$



Electrical Characteristics

Performance Curves

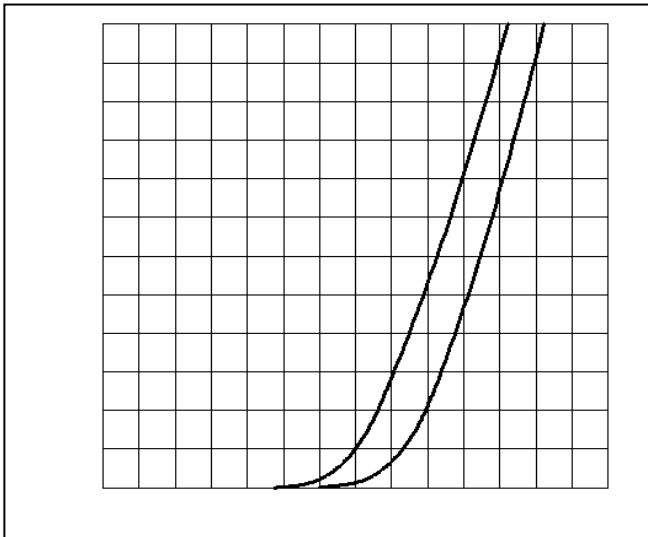


Fig1. Forward Voltage Drop vs Forward Current

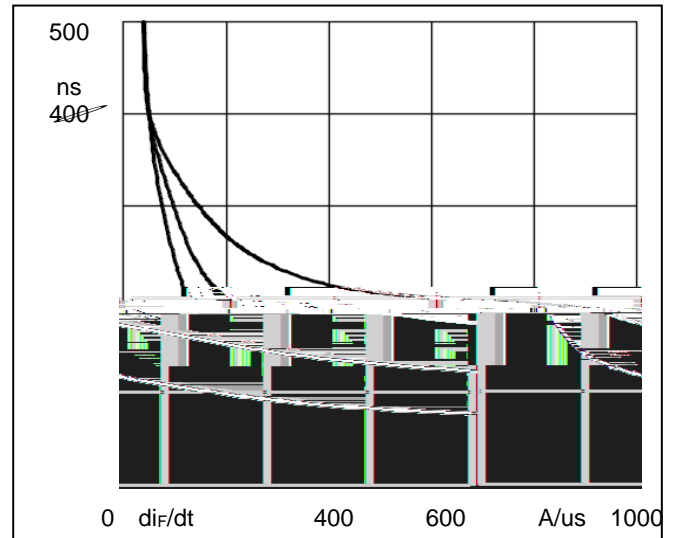


Fig2. Reverse Recovery Time vs di_F/dt

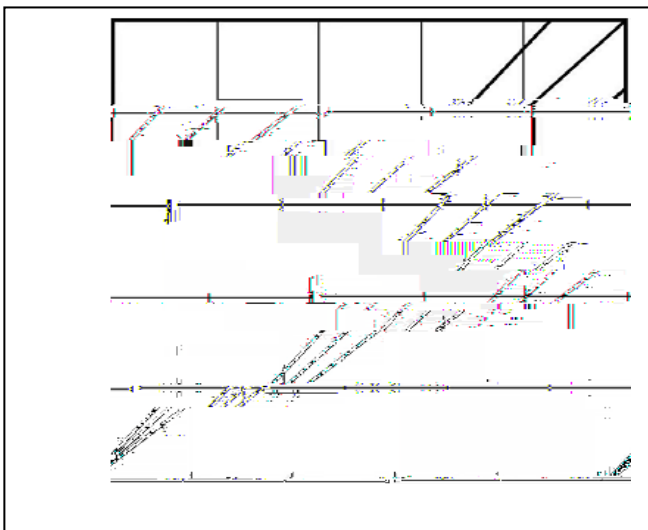


Fig3. Reverse Recovery Current vs di_F/dt

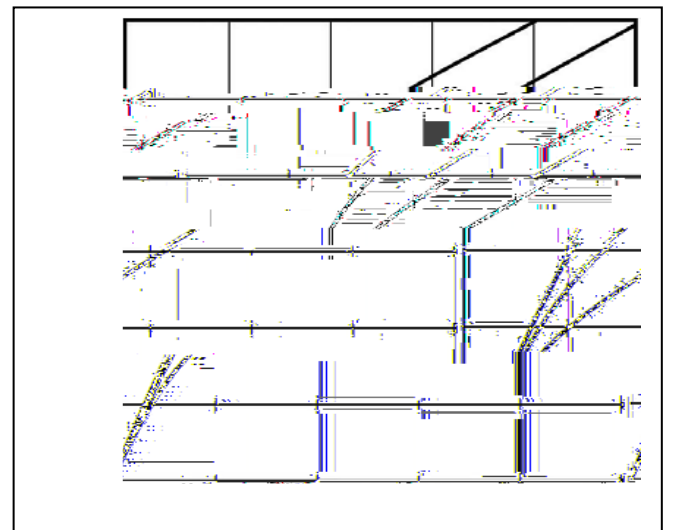


Fig4. Reverse Recovery Charge vs di_F/dt



MF400K04F3LG

Package Outline Information