



Micro Commercial Components



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130 W Cochran St, Unit B
Simi Valley, CA 93065
USA
Tel: 818-701-4933

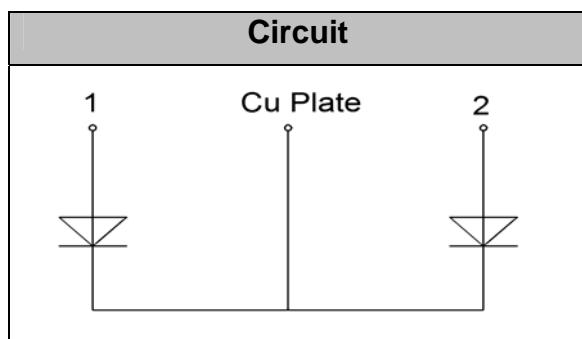
MF200K04F3

Features

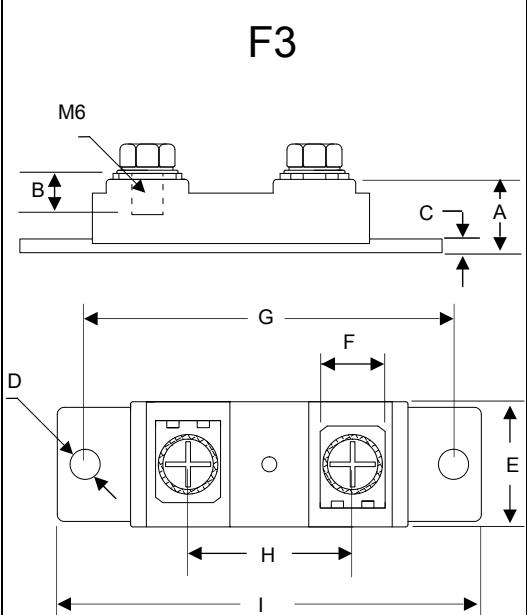
- Lead Free Finish/RoHS Compliant (NOTE 1) ("P" Suffix designates RoHS Compliant. See ordering information)
- Soft Reverse Recovery Characteristics
- Ultrafast Reverse Recovery Time
- Low Reverse Recovery Loss
- Low Forward Voltage
- High Surge Current Capability
- Low Inductance Package

Applications

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



**200 Amp
FRED Modules
400 Volts**



DIM	INCHES		MM		NOTE
	MIN	MAX	M/IN	MAX	
A	0.618	0.642	15.50	16.50	
B	0.343	0.366	8.50	9.50	
C	0.118	0.130	2.80	3.50	
D	0.256		6.50		Ø
E	1.051	1.075	26.50	27.50	
F	0.539	0.563	13.50	14.50	
G	3.138	3.161	79.50	80.50	
H	1.366	1.390	34.50	35.50	
I	3.610	3.634	91.50	92.50	

Maximum Ratings

Symbol	Conditions	Values	Units
V_R		400	V
V_{RRM}		400	V
$I_{F(AV)}$	$T_C=125^\circ C$, Per Diode	100	A
	$T_C=125^\circ C$, Per Moudle	200	A
	$T_C=125^\circ C$, 20KHz, Per Moudle	150	A
$I_{F(RMS)}$	$T_C=125^\circ C$, Per Diode	150	A
I_{FSM}	1/2 Cycle , 50Hz, Sine	1500	A
	1/2 Cycle , 60Hz, Sine	1800	A
I^2t	$T_J=45^\circ C$, $t=10ms$, 50Hz, Sine	11250	A^2s
	$T_J=45^\circ C$, $t=8.3ms$, 60Hz, Sine	16200	A^2s
P_D		833	W
T_J		-40 to +150	$^\circ C$
T_{STG}		-40 to +125	$^\circ C$
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 diode	0.15	$^\circ C/W$

Electrical Characteristics

Symbol	Conditions	Values			Units
		Min.	Typ.	Max.	
I_{RM}	$V_R=400V$	--	--	0.5	mA
	$V_R=400V$, $T_J=125^\circ C$	--	--	1	mA
V_F	$I_F=100A$	--	1.1	1.35	V
	$I_F=100A$, $T_J=125^\circ C$	--	1.0	1.25	V
trr	$I_F=1A$, $V_R=30V$, $di_F/dt=-200A/\mu s$	--	38	--	ns
trr	$V_R=200V$, $I_F=100A$, $di_F/dt=-200A/\mu s$, $T_J=25^\circ C$	--	95	--	ns
I_{RRM}		--	8.5	--	A
trr	$V_R=200V$, $I_F=100A$, $di_F/dt=-200A/\mu s$, $T_J=125^\circ C$	--	150	--	ns
I_{RRM}		--	14	--	A

Performance Curves

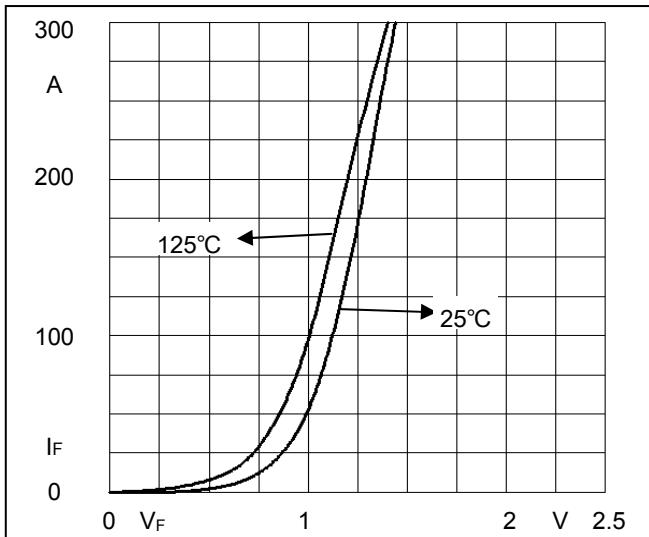


Fig1. Forward Voltage Drop vs Forward Current

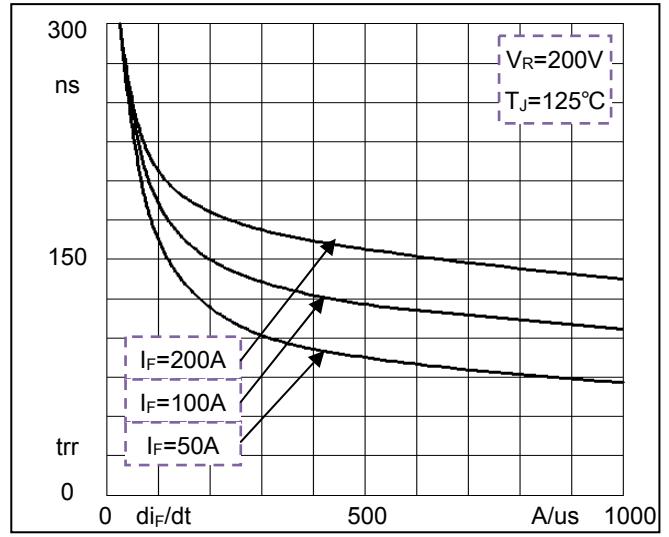


Fig2. Reverse Recovery Time vs di_F/dt

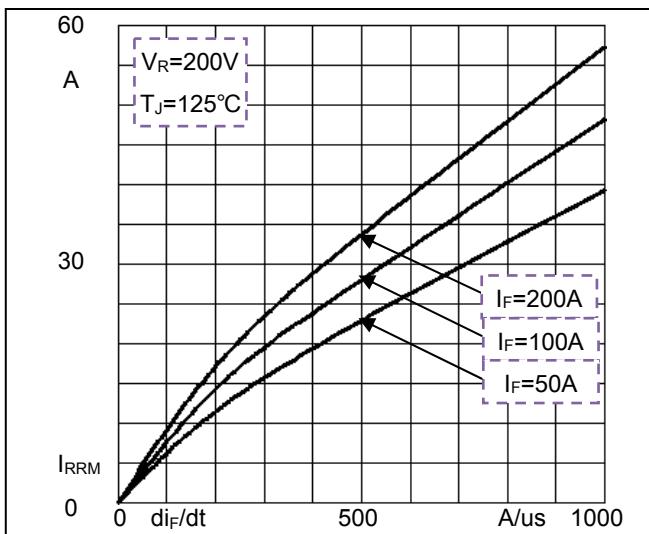


Fig3. Reverse Recovery Current vs di_F/dt

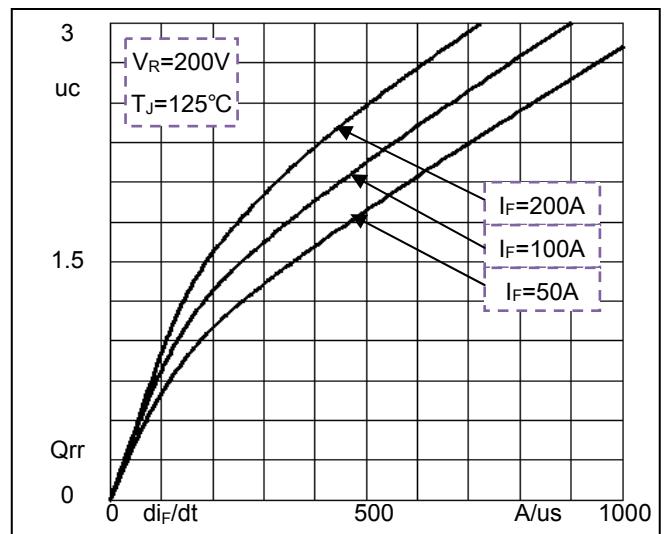


Fig4. Reverse Recovery Charge vs di_F/dt



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Ordering Information :

Device	Packing
Part Number-BP	Bulk: 10PCS/BOX ;100PCS/CTN

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