Micro Commercial Components
20736 Marilla Street Chatsworth
CA 91311
Phone: (818) 701-4933
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MF200K06F3

200 Amp
FRED Modules
600 Volts

Features

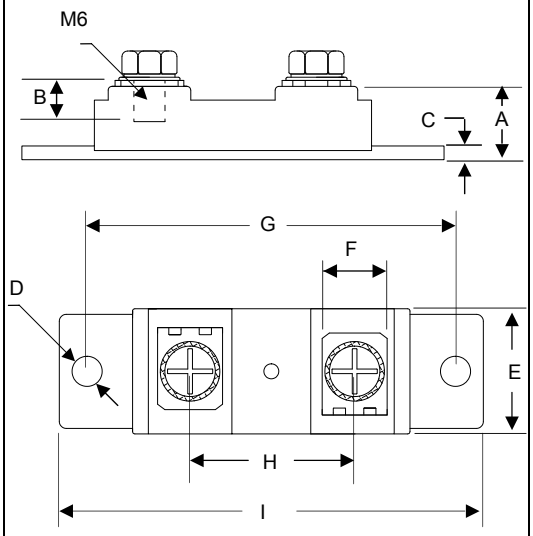
- Lead Free Finish/RoHS Compliant (NOTE 1)("P" Suffix designates RoHS Compliant. See ordering information)
- Soft Reverse Recovery Characteristics
- Ultrafast Reverse Recovery Time
- Low Reverse Recovery Loss
- Low Forward Voltage
- High Surge Current Capability
- Low Inductance Package

Applications

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

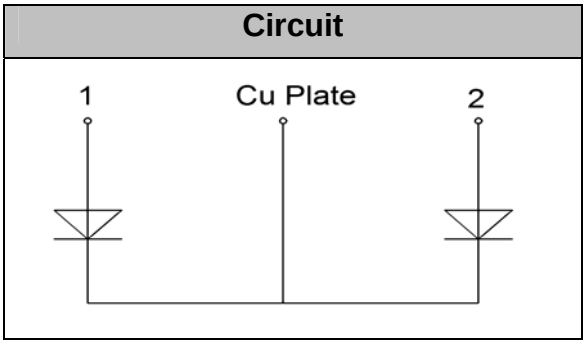


F3



DIMENSIONS					
	INCHES		MM		
DIM	MIN	MAX	MIN	MAX	NOTE
A	.618	.642	15.70	16.30	
B	.343	.366	8.70	9.30	
C	.118	.130	3.00	3.30	
D	.256		6.50		∅
E	1.051	1.075	26.70	27.30	
F	.539	.563	13.70	14.30	
G	3.138	3.161	79.70	80.30	
H	1.366	1.390	34.70	35.30	
I	3.610	3.634	91.70	92.30	

Circuit



Maximum Ratings

Symbol	Conditions	Values	Units
V_R		600	V
V_{RRM}		600	V
$I_{F(AV)}$	T_C=125°C, Per Diode	100	A
	T_C=125°C, Per Moudle	200	A
	T_C=125°C, 20KHz, Per Moudle	141	A
$I_{F(RMS)}$	T_C=125°C, Per Diode	141	A
I_{FSM}	1/2 Cycle , 50Hz, Sine	2100	A
	1/2 Cycle , 60Hz, Sine	2350	A
I^2t	T_J=45°C, t=10ms, 50Hz, Sine	22000	A^2s
	T_J=45°C, t=8.3ms, 60Hz, Sine	27600	A^2s
P_D		1400	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 diode	0.09	℃/W

Electrical Characteristics

Symbol	Conditions	Values			Units
		Min.	Typ.	Max.	
I_{RM}	V_R=600V	--	--	0.5	mA
	V_R=600V, T_J=125°C	--	--	1	mA
V_F	I_F=100A	--	1.15		V
	I_F=100A, T_J=125°C	--	1.0		V
trr	I_F=1A, V_R=30V, di_F/dt=-200A/μs	--	48	--	ns
trr	V_R=300V, I_F=100A, di_F/dt=-200A/μs, T_J=25°C	--	105	--	ns
I_{RRM}		--	10	--	A
trr	V_R=300V, I_F=100A, di_F/dt=-200A/μs, T_J=125°C	--	200	--	ns
I_{RRM}		--	18	--	A

Performance Curves

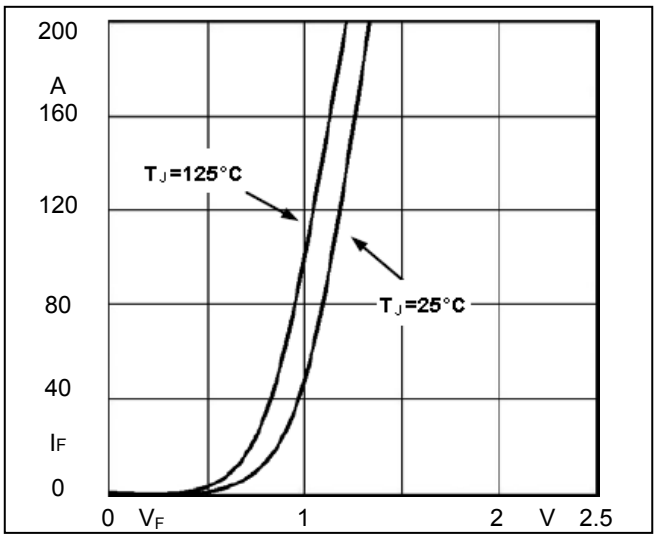


Fig1. Forward Voltage Drop vs Forward Current

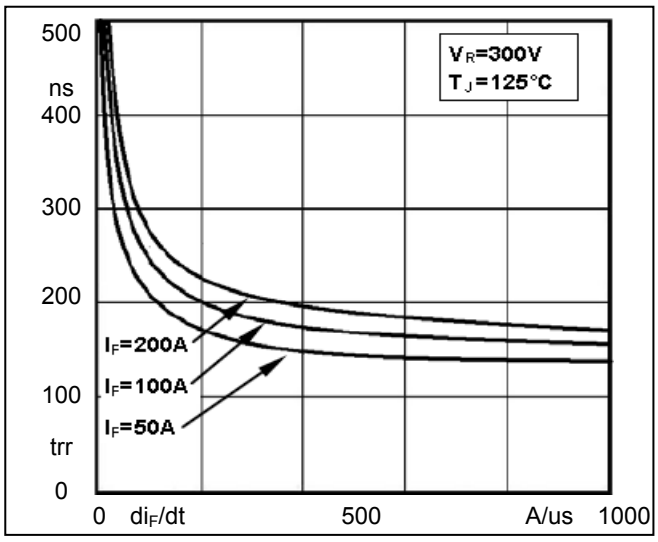


Fig2. Reverse Recovery Time vs di_F/dt

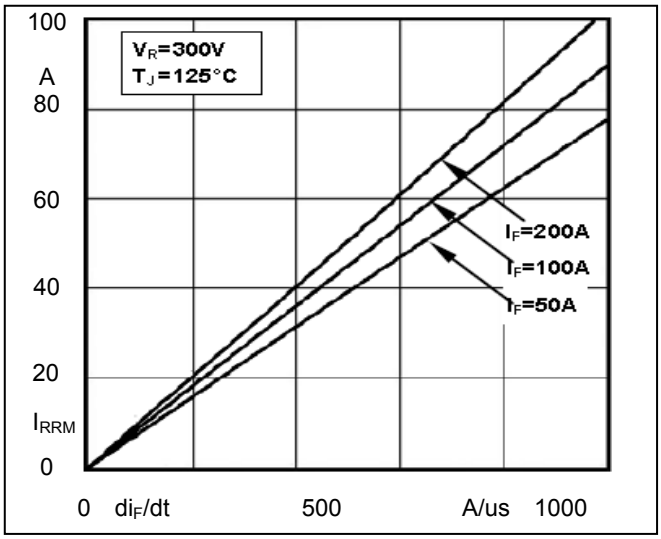


Fig3. Reverse Recovery Current vs di_F/dt

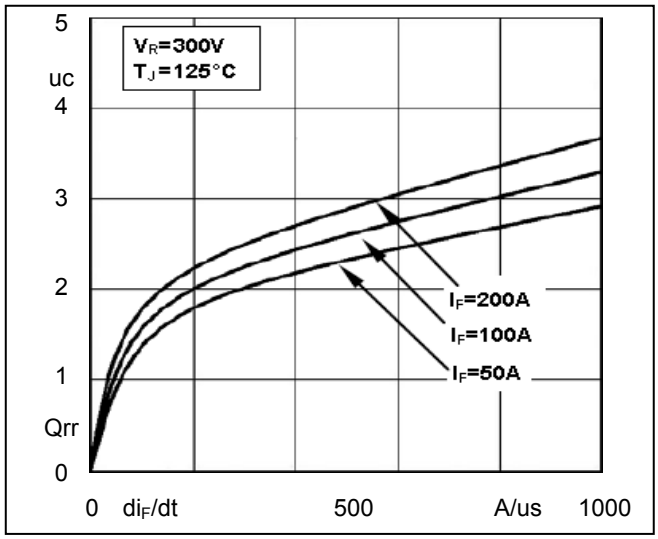


Fig4. Reverse Recovery Charge vs di_F/dt

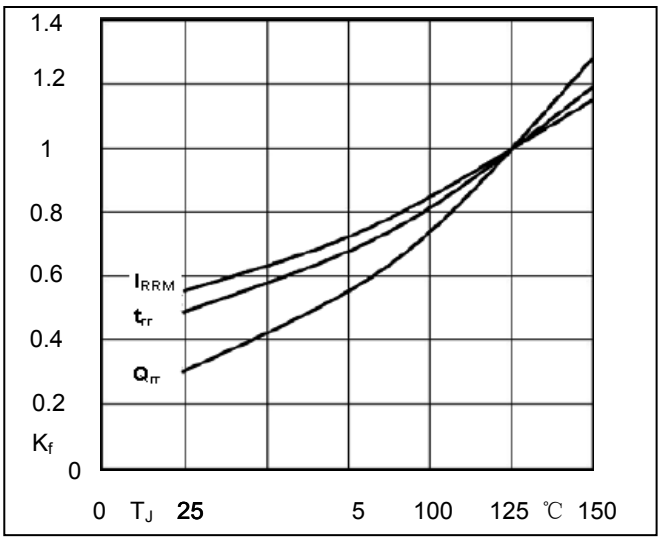


Fig5. Dynamic Parameters vs Junction Temprature

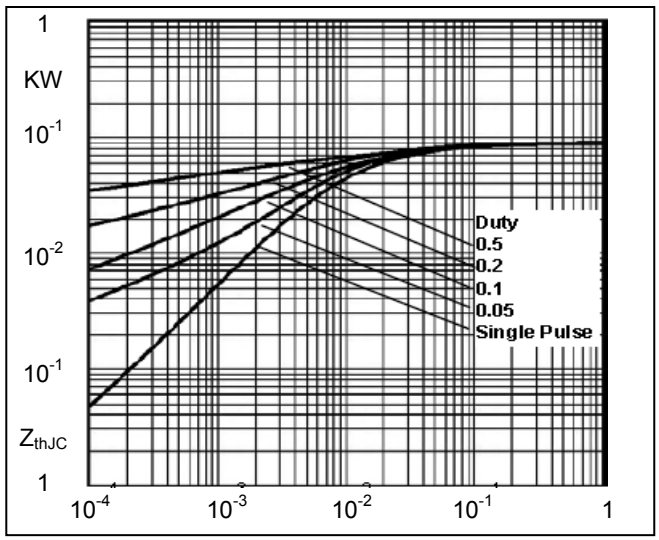


Fig6. Transient Thermal Impedance

Micro Commercial Components

Ordering Information :

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

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