



Micro Commercial Components

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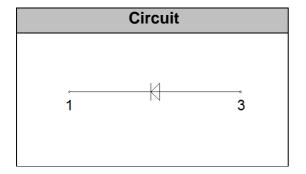
MF100U12F2

Features

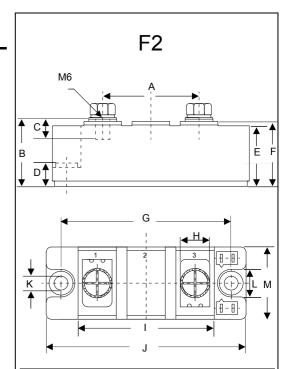
- Lead Free Finish/RoHS Compliant (NOTE 1)("P" Suffix designates RoHS Compliant. See ordering information)
- Soft Reverse Recovery Characteristics
- Ultrafast Reverse Recovery Time
- Low Reverse Recovery Loss
- Low Forward Voltage
- High Surge Current Capability
- Low Inductance Package

Applications

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



100 Amp FRED Modules 1200 Volts



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	NOIL
Α	0.886	0.925	22.50	23.50	
В	1.161	1.201	29.50	30.50	
C	0.335	0.374	8.50	9.50	
D	0.315	0.350	8.00	8.90	
Е	1.043	1.083	26.50	27.50	
F	1.122	1.161	28.50	29.50	
G	3.130	3.169	79.50	80.50	
Η	0.492	0.531	12.50	13.50	
_	2.500	2.539	63.50	64.50	
J	3.681	3.720	93.50	94.50	
K	0.2	0.256		6.50	
L	0.492	0.531	12.50	13.50	
М	1.319	1.358	33.50	34.50	





Maximum Ratings

Symbol	Conditions	Values	Units
V _R		1200	V
V_{RRM}		1200	V
I _{F(AV)}	T _C =110°C, Per Diode	100	А
I _{F(RMS)}	T _C =110°C, Per Diode	140	А
	1/2 Cycle , 50Hz, Sine	1100	А
I _{FSM}	1/2 Cycle , 60Hz, Sine	1200	Α
l ² t	T _J =45°C, t=10ms, 50Hz, Sine	6050	A ² s
P _D		140	W
Visol	AC, Ton=1min	3000	V
TJ		-40 to +150	°C
T _{STG}		-40 to +125	°C
Torque	Recommended (M6)	4.5	N·m
Torque	Recommended (M6)	4.5	N·m
Weight		140	g

Thermal Characteristics

Symbol	Conditions	Values	Units
Rth(j-c)	Junction - to - Case	0.22	°C/W

Electrical Characteristics

Symbol	Conditions	Values			Units
Symbol	Conditions		Тур.	Max.	Ullits
_	V _R =1200V			1	mA
I _{RM}	V _R =1200V, T _J =125°C			5	mA
V	I _F =100A		1.58		V
V_{F}	I _F =100A, T _J =125°C		1.35		V
trr	I_F =1A, V_R =30V, di_F/dt =-200A/ μ s		55		ns
trr	V _R =600V, I _F =100A, di _F /dt=-200A/μs, T _J =25°C		135		ns
I _{RRM}	V _R -000V, I _F -100A, αI _F /α(200A/μS, 1 _J -25 C		10		Α
trr	\\ _C00\\ _100\\ di \dt_200\\\; T_125°C		380		ns
I _{RRM}	V_R =600V, I_F =100A, di_F/dt =-200A/ μ s, T_J =125°C		21		А



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Performance Curves

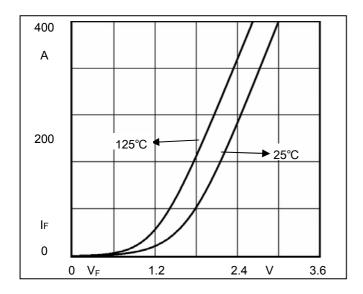


Fig1. Forward Voltage Drop vs Forward Current

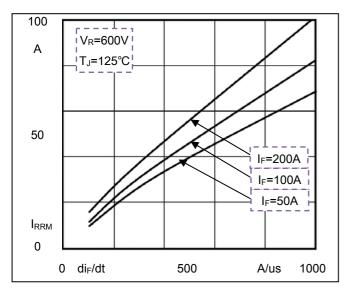


Fig3. Reverse Recovery Current vs di_F/dt

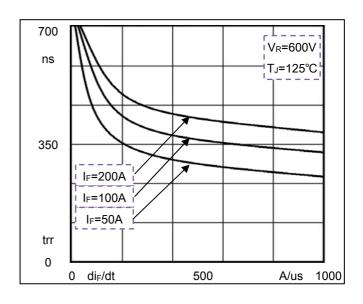


Fig2. Reverse Recovery Time vs di_F/dt

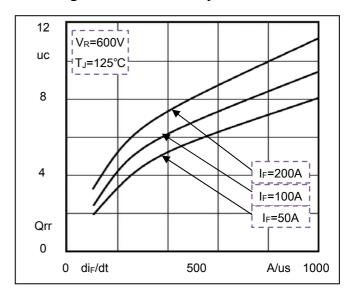


Fig4. Reverse Recovery Charge vs di_F/dt



Ordering Information:

Device	Packing
Part Number-BP	Bulk: 8PCS/BOX;80PCS/CTN

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