

FRED Modules

V_{RRM} 400V

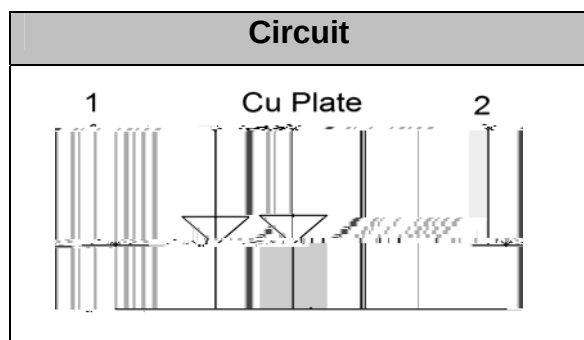
I_{FAV} 200 A

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	100	A
	$T_C=125^{\circ}\text{C}$, Per Module	200	A
	$T_C=125^{\circ}\text{C}$, 20KHz, Per Module	150	A
$I_{F(RMS)}$	$T_C=125^{\circ}\text{C}$, Per Diode	150	A
I_{FSM}	1/2 Cycle , 50Hz, Sine	1500	A
	1/2 Cycle , 60Hz, Sine	1800	A
I^2t	$T_J=45^{\circ}\text{C}$, $t=10\text{ms}$, 50Hz, Sine	11250	A^2s
	$T_J=45^{\circ}\text{C}$, $t=8.3\text{ms}$, 60Hz, Sine	16200	A^2s
P_D		833	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
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Weight		92	g

Thermal Characteristics

Symbol	Conditions	Values	Units
$R_{th(j-c)}$	Per diode	0.15	/W



Electrical Characteristics

Performance Curves



Fig1. Forward Voltage vs. Forward Current



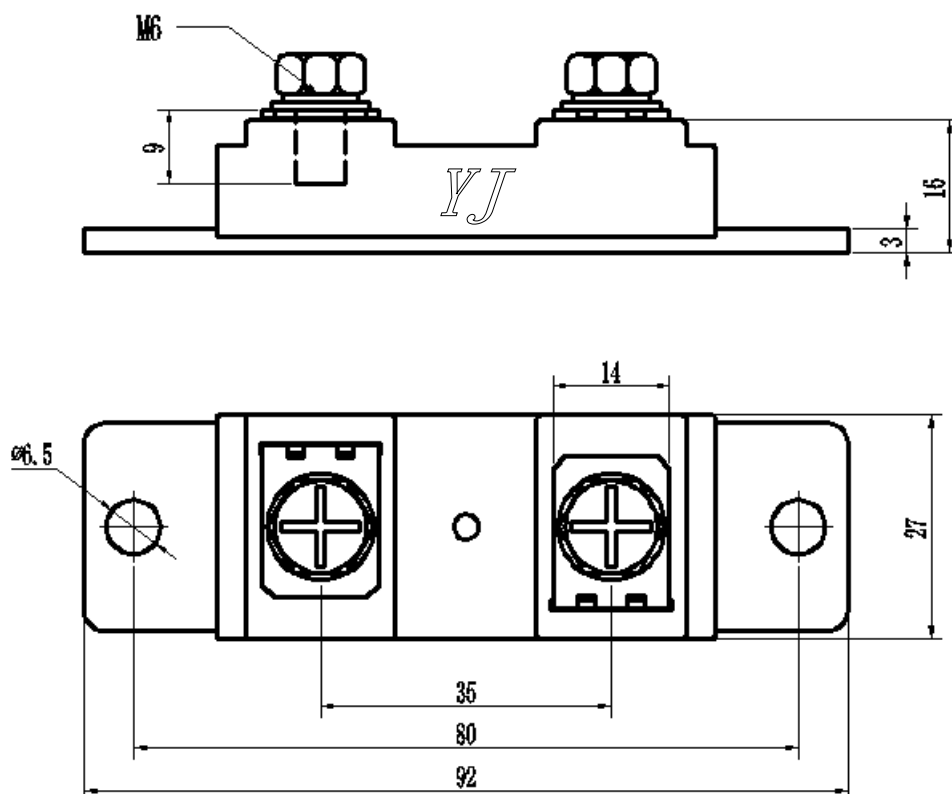
Fig3. Reverse Recovery Current vs di_F/dt



Fig4. Reverse Recovery Charge vs di_F/dt

Package Outline Information

CASE: F3



Dimensions in mm