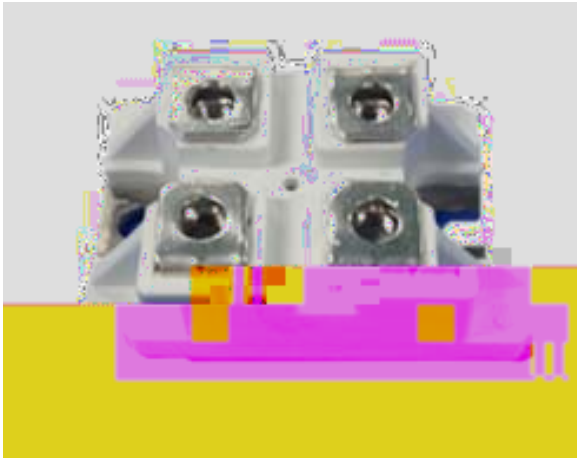
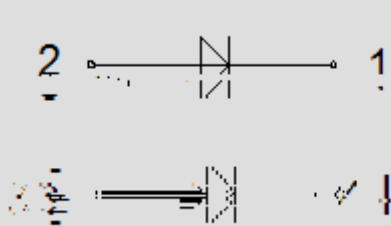




Circuit



FRED Modules

V_{RRM} 600V
 I_{FAV} 2 h 100 A

Applications

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

Features

- y Soft Reverse Recovery Characteristics
- y Ultrafast Reverse Recovery Time
- y Low Reverse Recovery Loss
- y Low Forward Voltage
- y High Surge Current Capability
- y Popular SOT-227 Package

Maximum Ratings

Symbol	Conditions	Values	Units
V_R		600	V
V_{RRM}		600	V
$I_{F(AV)}$	$T_C=90^{\circ}\text{C}$, Per Leg	100	A
	$T_C=90^{\circ}\text{C}$, Per Module	200	A
$I_{F(RMS)}$	$T_C=90^{\circ}\text{C}$, Per Leg	150	A
I_{FSM}	1/2 Cycle , 50Hz, Sine	1300	A
	1/2 Cycle , 60Hz, Sine	1500	A
I^2t	$T_J=45^{\circ}\text{C}$, $t=10\text{ms}$, 50Hz, Sine	8450	A^2s
P_D	$T_C=25^{\circ}\text{C}$	260	W
T_J		-40 to +150	$^{\circ}\text{C}$
T_{STG}		-40 to +125	$^{\circ}\text{C}$
Visol	3600V AC 1s	1	mA
Torque	To Sink RecommendedHM4H	0.6~1.2	N·m
Torque	To Terminal RecommendedHM4H	0.6~1	N·m
Weight		27	g

Thermal Characteristics

Symbol	Conditions	Values	Units
$R_{th(j-c)}$	Per diode	0.3	/W



Electrical Characteristics

Performance Curves

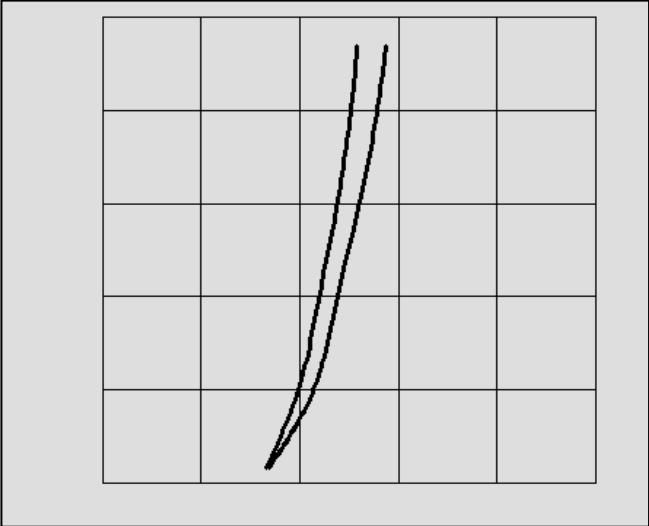


Fig1. Forward Voltage Drop vs Forward Current

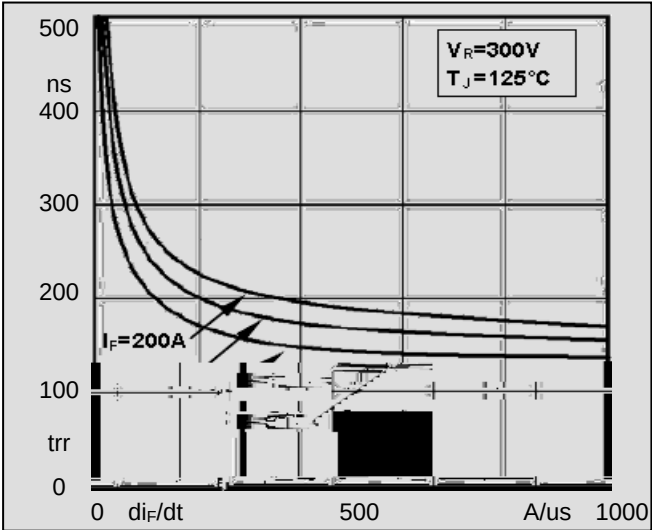


Fig2. Reverse Recovery Time vs di_F/dt



Fig3. Reverse Recovery Current vs di_F/dt

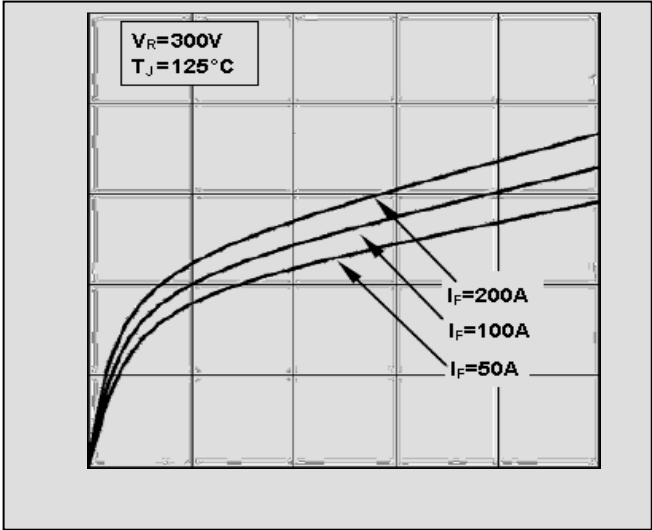


Fig4. Reverse Recovery Charge vs di_F/dt



MF200DU06FJ