

FRED Modules

V_{RRM} 600V
 I_{FAV} 100 A h2

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 Low Inductance Package
- y Insulation Encapsulation

Maximum Ratings

Symbol	Conditions	Values	Units
V_R		600	V
V_{RRM}		600	V
$I_{F(AV)}$	$T_C=100^{\circ}\text{C}$, Per Diode	100	A
	$T_C=100^{\circ}\text{C}$, Per Module	200	A
$I_{F(RMS)}$	$T_C=100^{\circ}\text{C}$, Per Diode	150	A
I_{FSM}	1/2 Cycle , 50Hz, Sine	1300	A
	1/2 Cycle , 60Hz, Sine	1426	A
I^2t	$T_J=45^{\circ}\text{C}$, $t=10\text{ms}$, 50Hz, Sine	8450	A^2s
	$T_J=45^{\circ}\text{C}$, $t=8.3\text{ms}$, 60Hz, Sine		A^2s
P_D		280	W
Visol	AC, $T_{on}=1\text{min}$	3000	V
T_J		-40 to +150	$^{\circ}\text{C}$
T_{STG}		-40 to +125	$^{\circ}\text{C}$
Torque	RecommendedHM5H	3±15%	N·m
Torque	RecommendedHM6H	4.5±15%	N·m
Weight		160	g

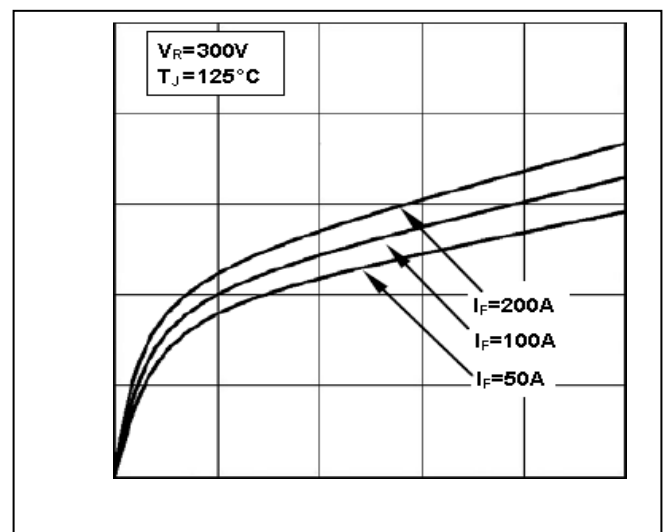
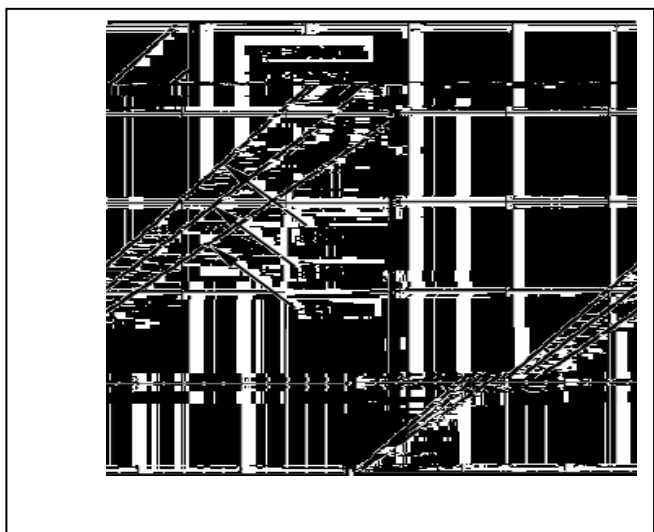
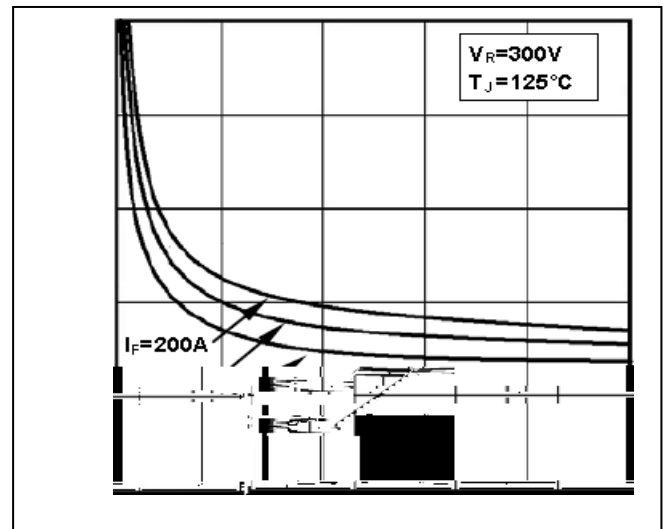
Thermal Characteristics

Symbol	Conditions	Values	Units
$R_{th(j-c)}$	Junction-to-Case, Per Diode	0.32	/W
$R_{th(j-c)}$	Junction-to-Case, Per Module	0.16	/W

Electrical Characteristics

Symbol	Conditions	Values
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Performance Curves



Package Outline Information

CASE: F5

Dimensions in mm