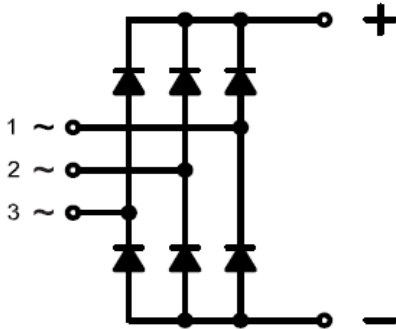


PRODUCT FEATURES

- Low Forward Voltage
- High Surge Current Capability
- Low Leakage Current
- Low Inductance Package



APPLICATIONS

- Field Supply For DC Motors
- Line Rectifiers For Transistorized AC Motor Controllers
- Non-controllable Rectifiers For AC/DC Converter



Module Type

Module Type	V_{RRM} (Repetitive Peak Reverse Voltage)	V_{RSM} (Non-Repetitive Peak Reverse Voltage)	Unit
MMD200F200X	2000	2100	

ABSOLUTE MAXIMUM RATINGS

$T_C=25^{\circ}\text{C}$ unless otherwise specified

Symbol	Parameter/Test Conditions		Values	Unit	
I_D	Output Current(D.C.)	Three phase, half wave, $T_c=95^{\circ}\text{C}$	200	A	
I_{FSM}	Non-Repetitive Surge Forward Current	1/2 cycle, 50HZ, peak value $T_c=45^{\circ}\text{C}$	2000		
		1/2 cycle, 60HZ, peak value, $T_c=45^{\circ}\text{C}$	2200		
I^2t	For Fusing	1/2 cycle, 50HZ, peak value $T_c=45^{\circ}\text{C}$	20.0	KA ² S	
		1/2 cycle, 60HZ, peak value, $T_c=45^{\circ}\text{C}$	20.1		
P_D	Power Dissipation		1389	W	
T_J	Junction Temperature		-40 to +150	$^{\circ}\text{C}$	
T_{STG}	Storage Temperature Range		-40 to +125	$^{\circ}\text{C}$	
V_{ISO}	Isolation Breakdown Voltage	AC, 50Hz(R.M.S), $t=1$ minute	3000	V	
Torque	Module-to-Sink	Recommended (M6)	3~5	N.m	
Torque	Module Electrodes	Recommended (M6)	3~5	N.m	
$R_{th(J-C)}$	Junction-to-Case Thermal Resistance		per diode	0.54	K /W
			per module	0.09	
Weight			250	g	

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ELECTRICAL CHARACTERISTICS

$T_C = 25^\circ\text{C}$ unless otherwise specified

Symbol	Parameter/Test Conditions	Min.	Typ.	Max.	Unit
I_{RM}	Maximum Reverse Leakage Current			0.5	mA
				$V_R = V_{RRM}, T_J = 125^\circ\text{C}$	
V_F	Forward Voltage Drop			1.45	V
V_{TO}	For power-loss calculations only, $T_J = 125^\circ\text{C}$			0.84	V
r_T				3.1	m Ω

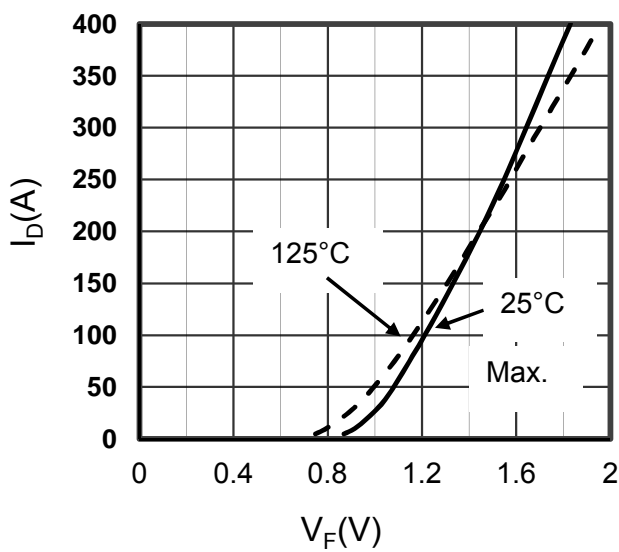


Figure1. Forward Voltage Drop vs Output Current

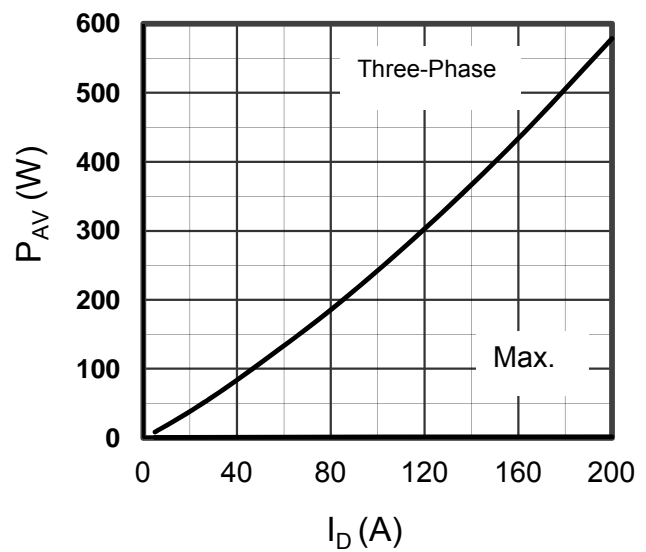


Figure2. Power dissipation vs. Output Current

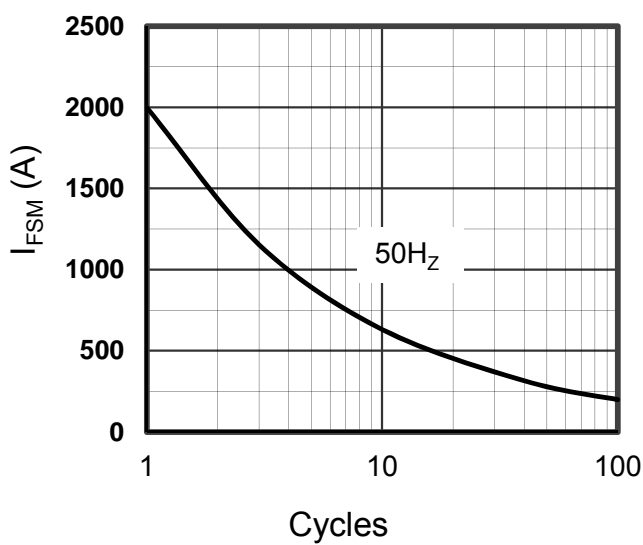


Figure3. Max Non-Repetitive Forward Surge Current

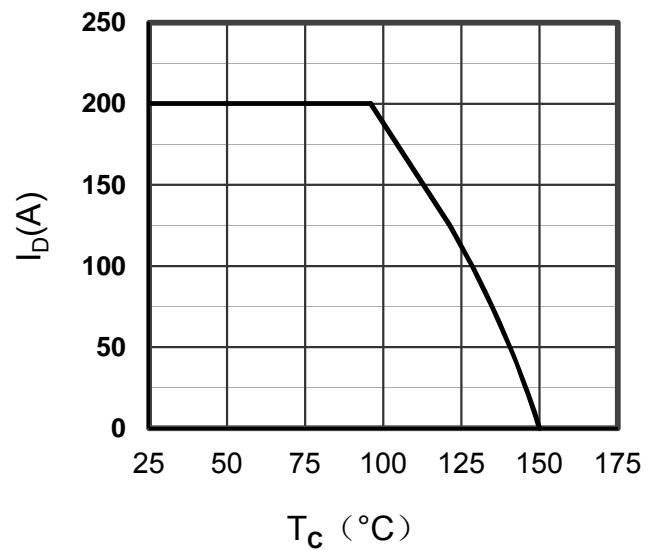
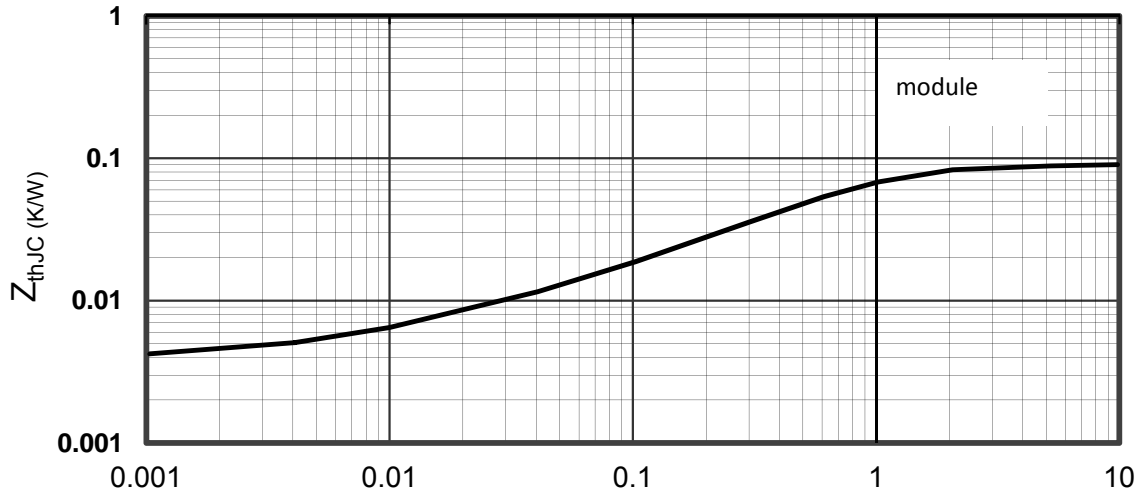
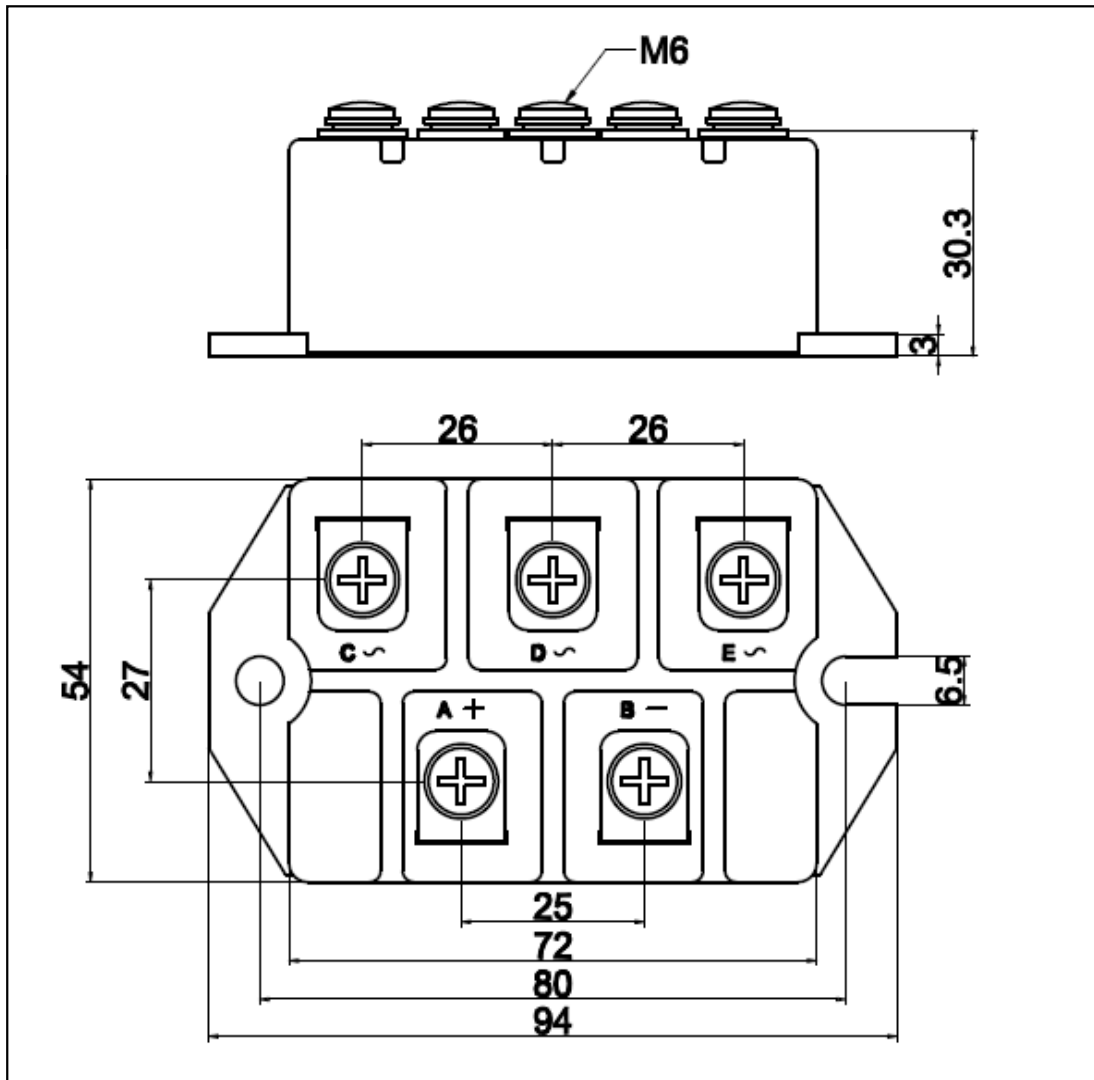


Figure4. Output current vs. Case temperature



Rectangular Pulse Duration (seconds)

Figure5. Transient Thermal Impedance



Dimensions in Millimeters and (Inchs)

Figure6. Package Outline