MMD200F200X

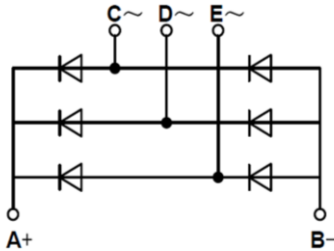## 200A Three-Phase Rectifier Bridge Module

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

□ UL:E332185

Module Type

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

ABSOLUTE MAXIMUM RATINGS(T_C=25°C unless otherwise specified)

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

MMD200F200X

ELECTRICAL CHARACTERISTICS *(T$_C$=25℃ unless otherwise specified)*

Symbol	Parameter/Test Conditions		Min.	Typ.	Max.	Unit
I$_{RM}$	Maximum Reverse Leakage Current	V$_R$ = V$_{RRM}$			0.5	mA
		V$_R$ = V$_{RRM}$, T$_J$ = 125℃			10	
V$_F$	Forward Voltage Drop	I$_F$=200A			1.45	V
V$_{TO}$	For power loss calculations only , T$_J$ = 125℃				0.85	V
r$_T$					3	mΩ

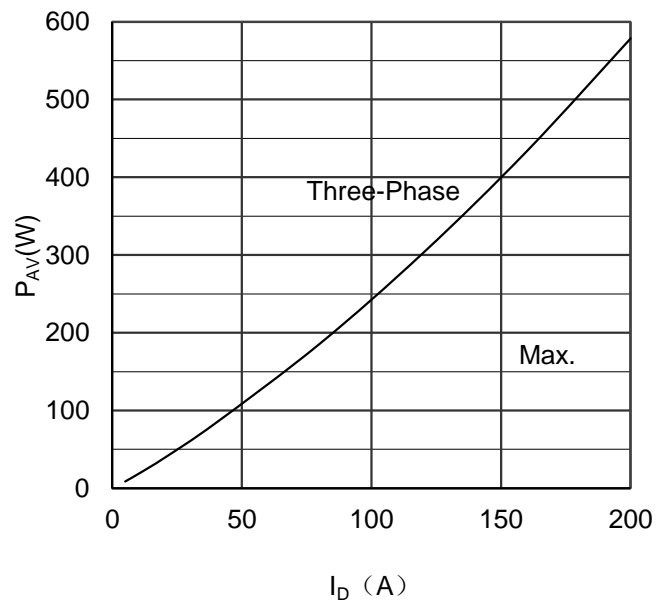Figure 1. Forward Voltage Drop vs Forward Current
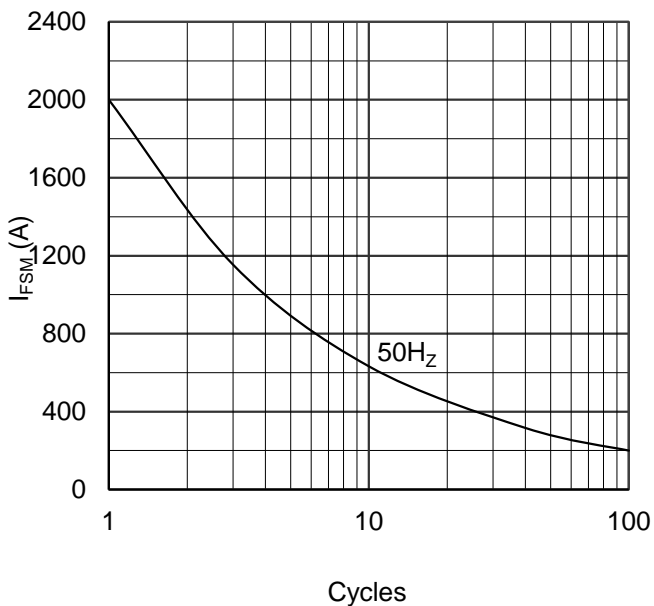

Figure 2. Power dissipation vs Output Current
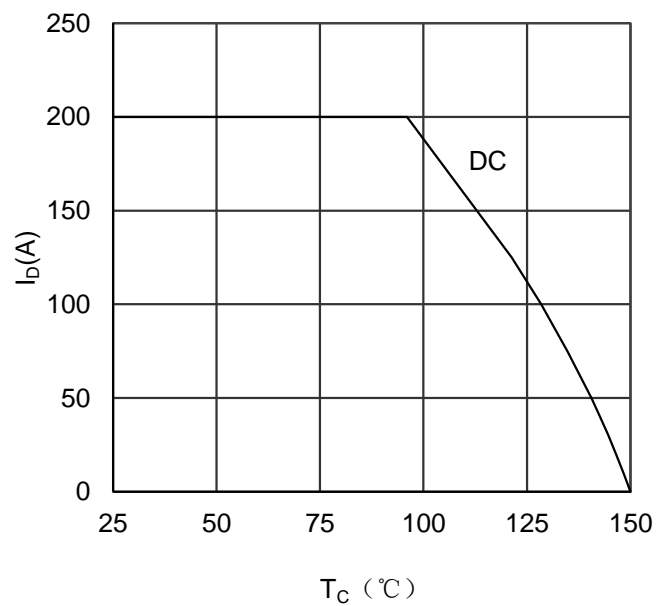

Figure 3. Max Non-Repetitive Forward Surge Current
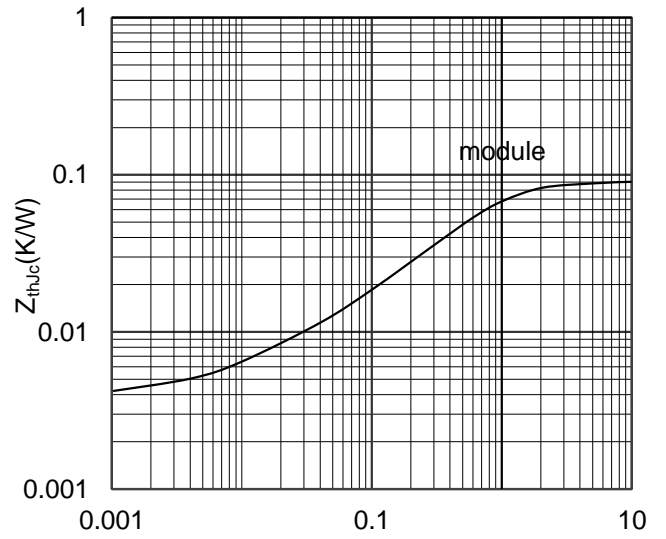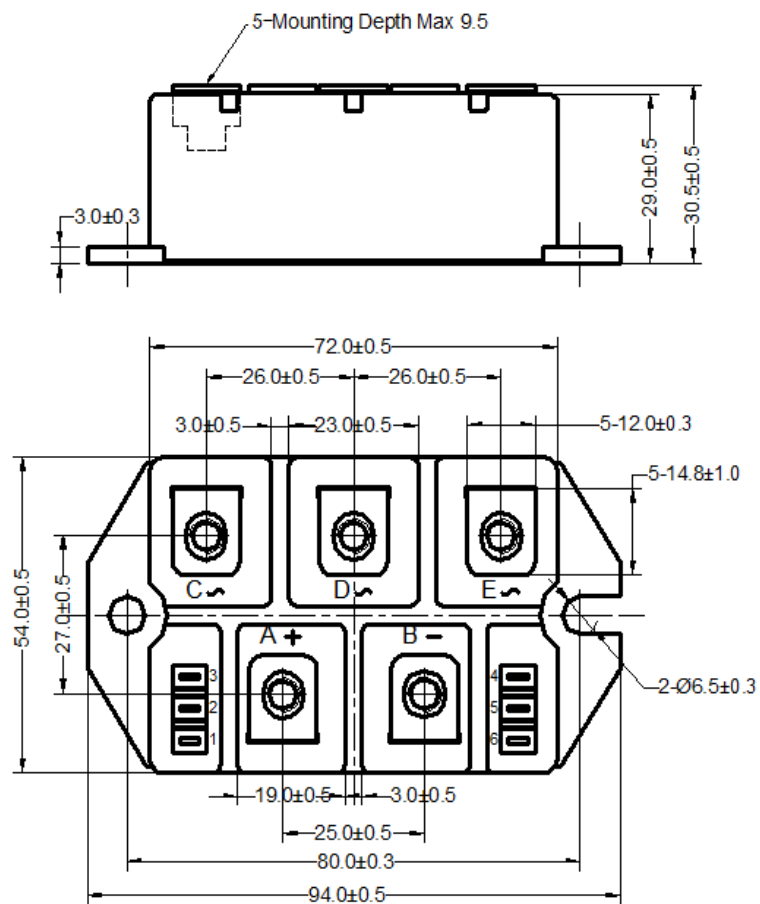

Figure 4. Output current vs Case temperature

2

Rectangular Pulse Duration(S)
Figure 5. Transient Thermal Impedance

Dimensions in (mm)
Figure 6. Package Outline