MMD50L160X

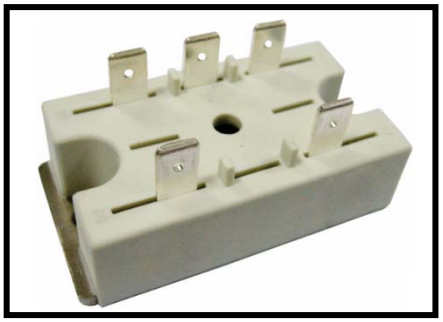
1600V 50A Rectifier Module

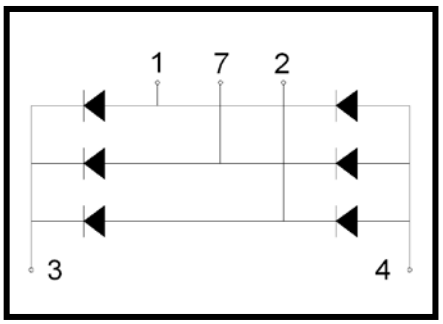
RoHS Compliant

Dec 2011 **PRELIMINARY**

Features

- Package with screw terminals
- Isolation voltage 3000 V~
- Planar passivated chips
- Blocking voltage up to 1600 V
- Low forward voltage drop





Applications

- Supplies for DC power equipment
- Input rectifiers for PWM inverter
- Battery DC power supplies
- Field supply for DC motors

Advantages

- Easy to mount with two screws
- Space and weight savings
- Improved temperature and power cycling

ABSOLUTE MAXIMUM RATINGS

T_C=25°C unless otherwise specified

Symbol	Test Condition	Value	Unit
V_{RRM}		1600	V
$I_{d(AV)}$	T_C=100℃, module	50	A
I_{FSM}	T_J=45℃; t=10ms (50Hz),sine	400	A
	V_R=0 t=8.3ms(60Hz),sine	430	A
I^2t	T_J=45℃; t=10ms (50Hz),sine	800	A^2s
	V_R=0 t=8.3ms(60Hz),sine	767	A^2s
T_J,T_{STG}		-40 to +150	℃
T_{JM}		150	℃
V_{ISOL}	50/60Hz RMS, t=1 min, I_{ISOL}≤1mA	3000	V~
Md	Mounting torque(M5)	5±15%	N·m
	Terminal connection torque(M5)	5±15%	N·m
Weight	typical	78	g

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ELECTRICAL AND THERMAL CHARACTERISTICS

T_C=25°C unless otherwise specified

Symbol	Test Condition	Value	Unit
I_R	V_R= V_{RRM}; T_J = 25℃	≤0.5	mA
	V_R= V_{RRM}; T_J =T_{JM}	≤3	mA
V_F	I_F=100A	≤1.8	V
R_{thJC}	per diode; DC current	1.2	K/W
	Per module	0.2	K/W
R_{thCS}	per diode; DC current(typ.)	0.2	K/W

NOTE: Data according to IEC 60747 and refer to a single diode unless otherwise stated.

Package Outline (Dimensions in mm)