浙江晶泰电子有限公司

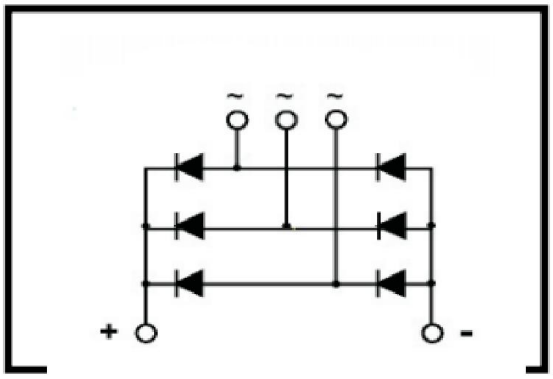
Zhejiang Jing Tai Electronics Co., Ltd.

MDS60-16

Features

- ***3 phase bridge rectifier***
- ***Package with screw terminals***
- ***Isolation voltage 2500 V***
- ***Planar passivated chips***
- ***Blocking voltage up to 1600 V***
- ***Low forward voltage drop: 1.3V***

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 screws***
- **Glass inactivation techniques**
- ***Improved temperature and power cycling***

Absolute Maximum Ratings

T_C=25°C unless otherwise specified

Symbol	Test Condition		Value	Unit
V_{RRM}			1600	V
$I_{D(MAX)}$	T_C=100°C, Per module		60	A
I_{FSM}	T_J=45°C; V_R=0	t=10ms (50Hz),sine	500	A
		t=8.3ms(60Hz),sine	550	A
	T_J=150°C; V_R=0	t=10ms (50Hz),sine	440	A
		t=8.3ms(60Hz),sine	480	A
I^2t	T_J=45°C; V_R=0	t=10ms (50Hz),sine	1950	A^2s
		t=8.3ms(60Hz),sine	2100	A^2s
	T_J=150°C; V_R=0	t=10ms (50Hz),sine	1380	A^2s
		t=8.3ms(60Hz),sine	1520	A^2s
T_{STG}			-40 to +150	°C
T_{JMAX}			150	°C
V_{ISOL}	50/60Hz; R.M.S. t=1min		2500	V~
Md	Mounting torque(M5)		4±15%	N.m
	Terminal connection torque(M4)		3±15%	N.m
Weight	Typical		120	g

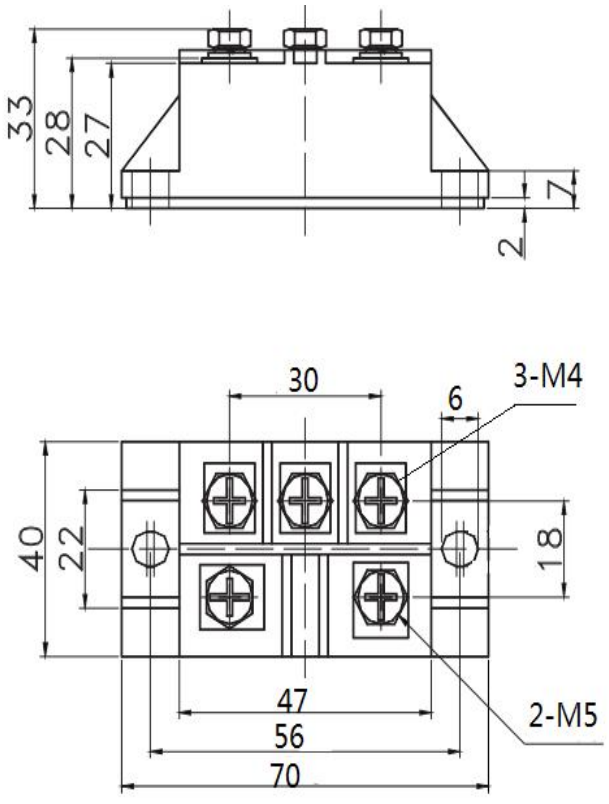
Electrical and Thermal Characteristics

T_C=25°C unless otherwise specified

Symbol	Test Condition	Value	Unit
I_R	V_R= V_{RRM}; T_J = 25°C	<0.5	mA
	V_R= V_{RRM}; T_J =T_{JMAX}	<3	mA
V_F	I_F=50A; T_J=125°C	1.2	V
V_{TO}	For power-loss calculations only	0.8	V
R_{thjc}	Per diode; DC current	1.1	K/W
	Per module	0.18	K/W
R_{thcs}	Per diode; DC current	0.42	K/W
	Per module	0.07	K/W
d_S	Creepage distance on surface	10	mm
d_A	Creepage distance in air	9.4	mm
a	Max. allowable acceleration	50	m/s^2

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

Package Outline (Dimensions in mm)



Ordering Information

MDS	50	16	(None)/H
①	②	③	④

①----- Device Type MDS = Three Phase Bridge Rectifier Module; MDQ = Single Phase Bridge Rectifier Module;
②-----Current Rating = I_D, Average or Maximum Output Direct Current
③-----Voltage Code X 100 = V_{RRM}, Maximum Repetitive Peak Reverse Voltage
④-----Package Case Option: None = Normal Standard Package
H = Heavy Package Case