

150A,800V-1600V 整流模块 150A,800V-1600V Rectifier module

■特征 Features

- 玻璃钝化芯片
Glass passivated chip
- 低反向漏电流
Low reverse leakage current
- 高耐浪涌电流能力
High surge current capability
- 符合 RoHS 指令 2011/65/EU
Compliant to RoHS directive 2011/65/EU

关键参数 KEY PARAMETERS		
参数 PARAMETER	数值 VALUE	单位 UNIT
$I_{F(AV)}$	150	A
V_{RRM}	800-1600	V
I_{FSM}	5000	A
Package	MDD150	

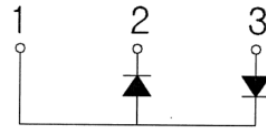
■应用范围 Applications

- 工业电源
Industrial power supply
- 工业自动化设备
Industrial power supply
- PWM 逆变器直流电源
DC supply for PWM inverter
- 直流电源设备用电源
Supplies for DC power equipment



■机械参数 Mechanical Data

- 本体: MDD150
Case : MDD150
- 极性: 极性符号铸在管体上
Polarity: Polarity symbols being marked on body
- 安装扭矩: 25.0 kgf.cm
Mounting torque: 25.0 kgf.cm max
- 重量: 约 120 克
Weight : About 120 grams



■最大额定值 Maximum Ratings @ Ta = 25°C unless otherwise noted

参数 PARAMETER	符号 SYMBOL	MDD150 A80	MDD150 A100	MDD150 A120	MDD150 A140	MDD150 A160	单位 UNIT	
反向重复峰值电压 Maximum recurrent peak reverse voltage	V_{RRM}	800	1000	1200	1400	1600	V	
平均整流输出电流 Average rectified output current	$I_{(AV)}$	带散热片, $T_c=100^\circ\text{C}$ with heatsink, $T_c=100^\circ\text{C}$					150	A
最大正向浪涌电流, 8.3ms 单半正弦波叠加在额定负载上 Peak surge forward current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}						5000	A
热容值, 1ms<t<8.3ms, $T_j=25^\circ\text{C}$, 单个二极管 Rating for fusing, 1ms<t<8.3ms, $T_j=25^\circ\text{C}$, Rating of per diode	I^2t						103750	A ² s
结温 Junction temperature	T_j						-40 ~ +150	°C
存储温度 Storage temperature	T_{STG}						-40 ~ +125	°C
绝缘耐压, 端子与外壳之间外加交流电 1 分钟 Dielectric strength, terminals to case AC 1 minute	V_{dis}						3.0	KV

■电性特性 Electrical Characteristics @ Ta = 25°C unless otherwise noted

参数 PARAMETER	条件 CONDITIONS	符号 SYMBOL	额定值 RATED VALUE	单位 UNIT
正向峰值电压 Peak Forward Voltage	$I_F = 150A$	V_F	1.3	V
反向峰值电流 Peak Reverse Current	VR=VRRM, 脉冲测试, 单个二极管的额定值 VR=VRRM, Pulse measurement Rating of per diode	$T_j=25^\circ C$	0.5	mA
		$T_j=125^\circ C$	10	

■热特性 Thermal Characteristics @ Ta = 25°C unless otherwise noted

参数 PARAMETER	符号 SYMBOL	额定值 RATED VALUE	单位 UNIT
结到管壳的热阻, 有散热片 Junction to case thermal resistance, with heatsink	$R_{\theta JC}$	0.18	°C/W

■特性曲线 Characteristic Curve

FIG1. Derating Curve For Output Rectified Current

图 1. 电流降额曲线

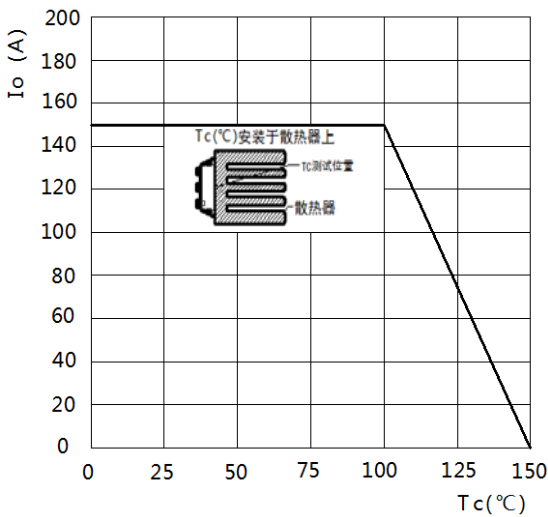


FIG3. Typical Reverse Characteristics Per Bridge Element

图 3. 典型反向特性

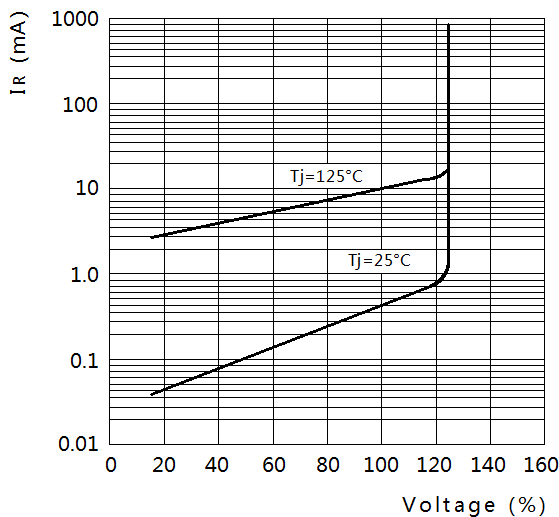


FIG2. Maximum Non-Repetitive Peak Forward Surge Current Per Bridge Element

图 2. 最大正向不重复峰值浪涌电流

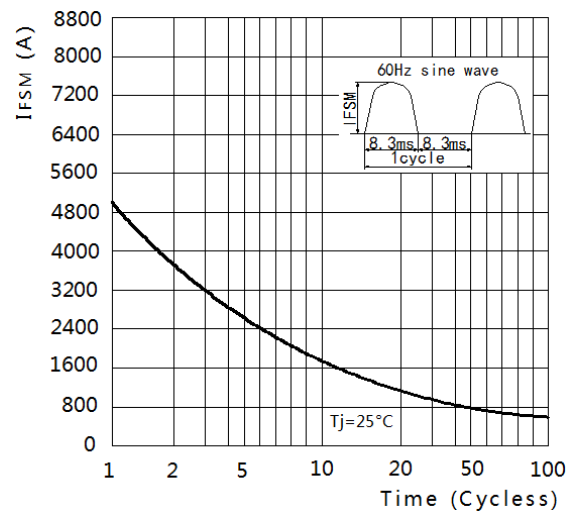
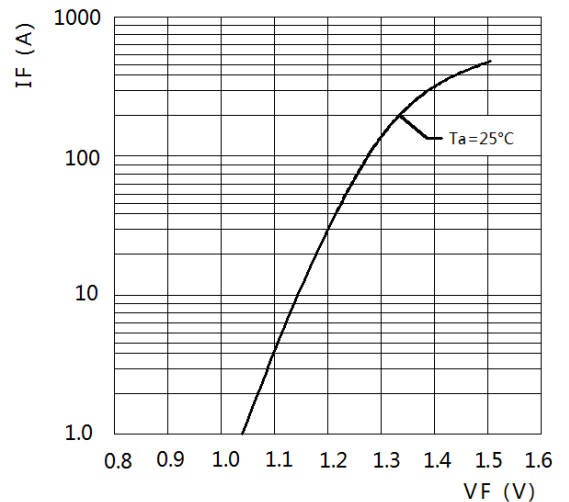
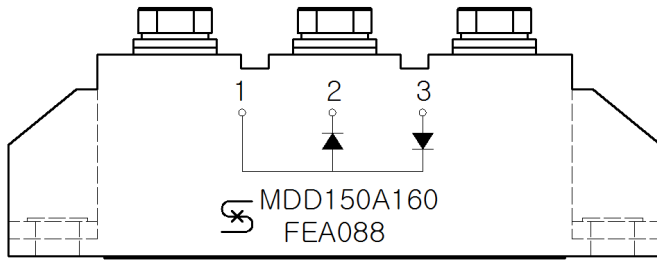


FIG4. Typical Forward Characteristics Per Bridge Element

图 4. 典型正向特性



■ 标记图 Marking Diagram



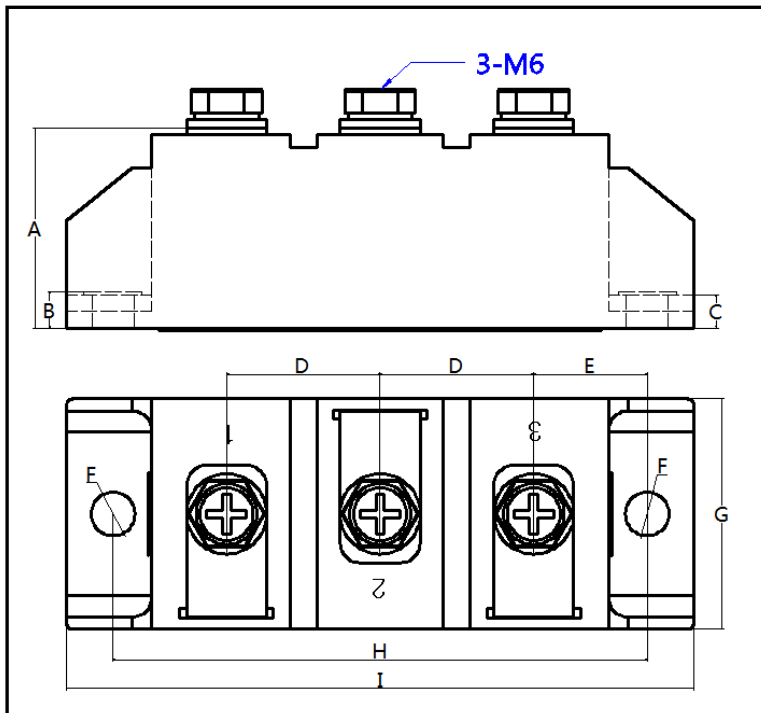
MDD150A160：标识代码

Marking code

FEA088：制程码

Process code

■ 尺寸图 Dimension Drawing



Dim.	Unit(mm)		Unit(inch)	
	Min.	Max.	Min.	Max.
A	28.00	32.00	1.102	1.260
B	5.00	6.00	0.197	0.236
C	4.5	5.5	0.177	0.217
D	22.50	23.50	0.886	0.925
E	16.50	17.50	0.650	0.689
F	6.00	6.60	0.236	0.260
G	33.50	35.50	1.319	1.398
H	79.00	81.00	3.110	3.189
I	93.00	95.00	3.661	3.740

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