

EVVOSEMI[®]

THINK CHANGE DO



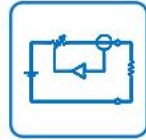
ESD



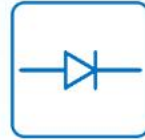
TVS



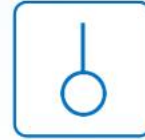
MOS



LDO



Diode



Sensor



DC-DC

Product Specification

▶ Domestic	Part Number	MT5010 THRU MT5016
▶ Overseas	Part Number	MT5010 THRU MT5016
▶ Equivalent	Part Number	MT5010 THRU MT5016

EV is the abbreviation of name EVVO

50A 1000V-1600V 三相玻璃钝化整流桥

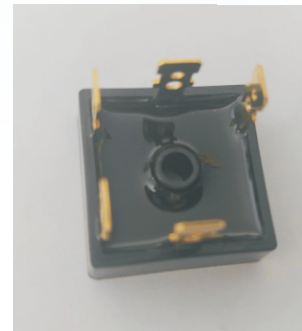
■特征 Features

- 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

关键参数 KEY PARAMETERS		
参数 PARAMETER	数值 VALUE	单位 UNIT
$I_{F(AV)}$	50	A
V_{RRM}	1000-1600	V
I_{FSM}	500	A
Package	MT	

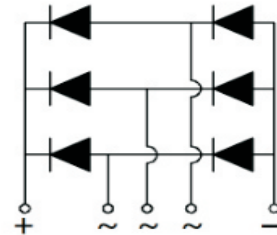
■应用范围 Applications

- 变频器
Frequency converter
- 工业电源
Industrial power supply



■机械参数 Mechanical Data

- 本体：MT
Case: MT
- 极性：极性符号铸在管体上
Polarity: Polarity symbols being marked on body
- 安装扭矩：6.0kgf.cm
Mounting torque: 6.0kgf.cm max
- 重量：约 18 克
Weight: About 18 grams



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

参数 PARAMETER	符号 SYMBOL	MT5010	MT5012	MT5016	单位 UNIT
反向重复峰值电压 Maximum recurrent peak reverse voltage	V_{RRM}	1000	1200	1600	V
平均整流输出电流 Averagerectified output current	$I_{(AV)}$	带散热片, $T_c=85^\circ\text{C}$ with heatsink $T_c=85^\circ\text{C}$			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 sinewave superimposed on rated load		I_{FSM}	500		
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	1037			A^2s
结温 Junction temperature	T_j	-55 ~ +150			$^\circ\text{C}$
存储温度 Storage temperature	T_{STG}	-55 ~ +150			$^\circ\text{C}$
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}	2.5			KV

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

参数 PARAMETER	条件 CONDITIONS	符号 SYMBOL	MT5010	MT5012	MT5016	单位 UNIT
正向峰值电压 Peak Forward Voltage	$I_F = 25\text{ A}$	V_F	1.1		1.2	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	I_R	5			μA
	$T_J = 25^\circ\text{C}$		500			
	$T_J = 125^\circ\text{C}$					

■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
结到环境的热阻, 无散热片 Junction to ambient thermal resistance without heatsink	$R_{\theta JA}$	26	$^\circ\text{C}/\text{W}$
结到管壳的热阻, 有散热片 Junction to case thermal resistance with heatsink	$R_{\theta JC}$	0.8	$^\circ\text{C}/\text{W}$

■特性曲线 Curve Characteristics

Fig. 1 - Forward Current Derating Curve

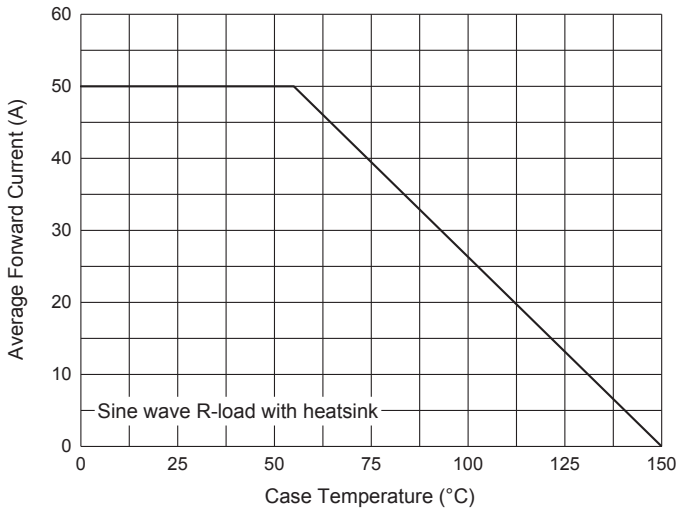


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

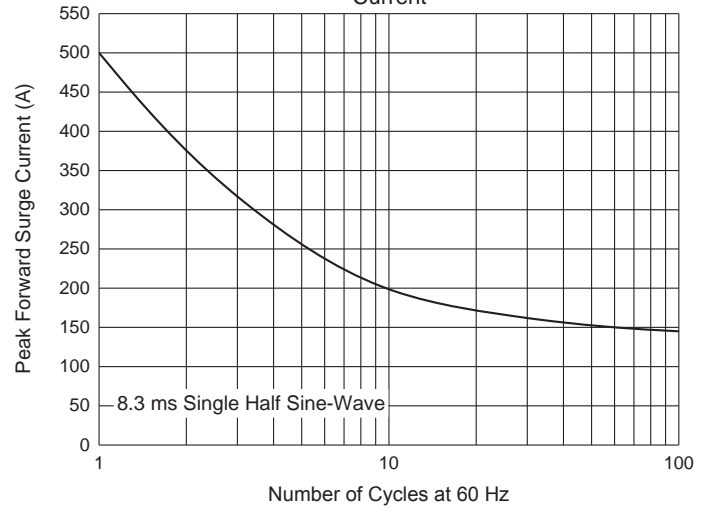


Fig. 3 - Typical Instantaneous Forward Characteristics

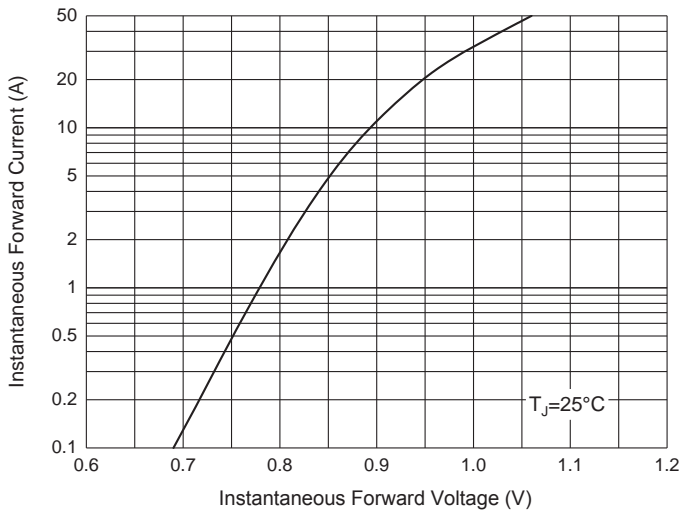
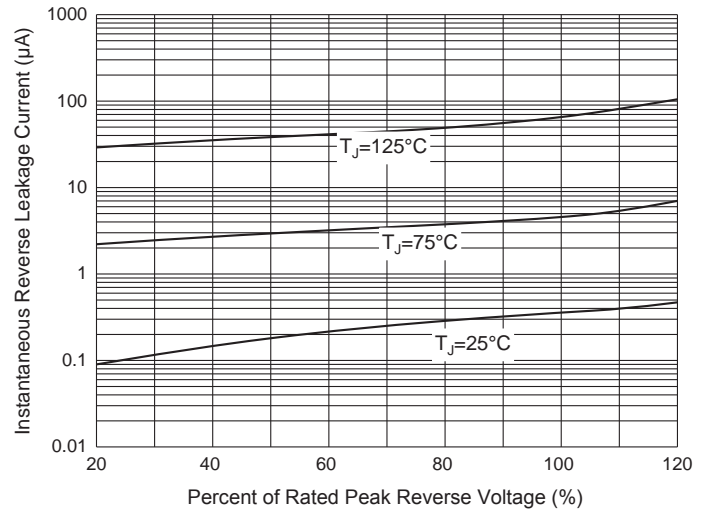
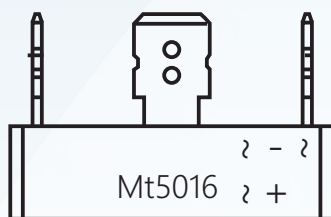


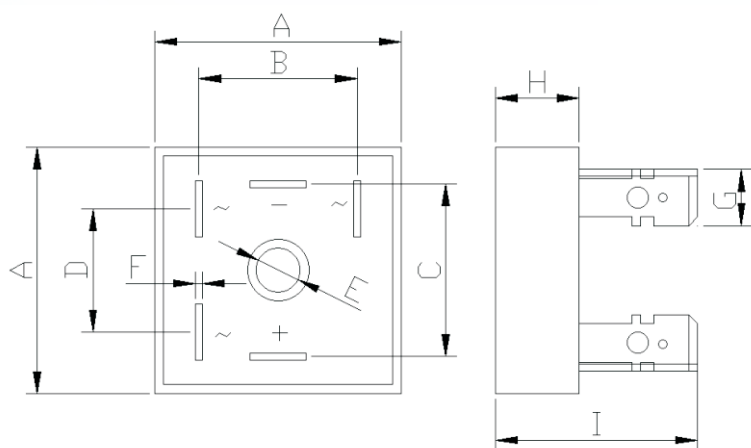
Fig. 4 - Typical Reverse Leakage Characteristics



■标记图 Marking Diagram



■尺寸图 Dimension Drawing



Dim.	Unit(mm)		Unit(inch)	
	Min.	Max.	Min.	Max.
A	28.00	29.00	1.102	1.142
B	23.70	24.70	0.933	0.972
C	23.70	24.70	0.933	
D	15.50	16.50	0.610	0.650
E	4.50	5.50	0.177	0.217
F	0.60	1.00	0.024	0.039
G	6.10	6.50	0.240	0.256
H	9.50	10.50	0.374	0.413

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