FCI Semiconductor *Data Sheet*

MSB20A THRU MSB20M

Surface Mount Glass Passivated Bridge Rectifiers
贴片式玻璃钝化整流桥

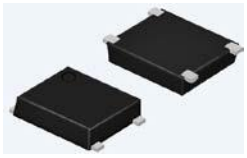
Reverse Voltage - 50 to 1000 Volts
反向电压 50-1000V
Forward Current - 2.0 Amperes
正向电流 2.0A

Features 特征
- Compact, Thin Profile Package Design 紧凑，薄的封装外形设计
- Ideal for SMT manufacturing 适用于制造业
- Reliable robust construction 可靠的结构

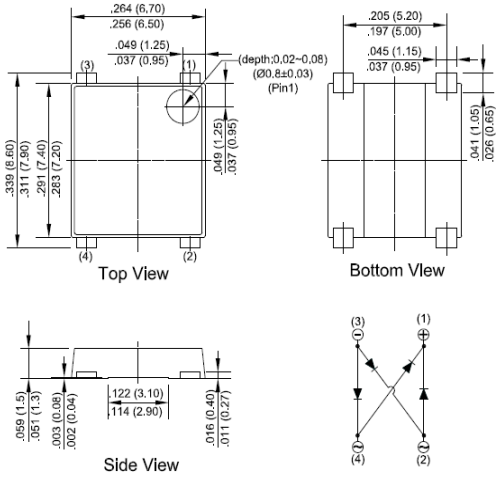
Mechanical Data 外观信息
- Polarity: Symbol marked on body 极性：标志在产品的本体上
- Mounting position: Any 安装位置：任何位置

Applications 应用
- General purpose use in AC/DC bridge full wave rectification, for SMPS, lighting ballaster, adapter, etc.
  一般应用于交流/直流桥式全波整流，如：开关电源，照明镇流器、适配器等。

MSBL



RoHS COMPLIANT



Package Outline Dimensions in Inches (Millimeters)
封装外观尺寸单位英寸（毫米）

Maximum Ratings and Electrical Characteristics 最大额定值及电气特性

Rating at 25℃ ambient temperature unless otherwise specified. 环境温度25℃，除非特别说明。
Single phase, half wave, 60Hz, resistive or inductive load. 单相半波， 60Hz， 阻性或感性负载。
For capacitive load, derate current by 20%. 对于电容性负载，降低20%的额定电流。

Characteristics 特性	Symbol 符号	MSB 20A	MSB 20B	MSB 20D	MSB 20G	MSB 20J	MSB 20K	MSB 20M	Unit 单位
Maximum Repetitive Peak Reverse Voltage 最大重复峰值反向电压	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage 最大有效反向电压	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage 最大直流阻断电压	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current @T_C=110 ℃ (Note1) 最大正向平均整流电流	$I_{(AV)}$	2.0							A
Peak Forward Surge Current @ 8.3ms Single Half Sine-Wave @ 1.0ms 单一正弦半波叠加在额定负载上的浪涌能力（JEDEC方法）	I_{FSM}	75 150							A
I^2t Rating for Fusing (1ms < t < 8.3ms) 熔断额定值 (1ms < t < 8.3ms)	I^2t	23.3							A^2s
Peak Forward Voltage Per Diode at 1A DC 单个二极管在1.1A电流下的正向峰值电压	V_F	0.98							V
Peak Forward Voltage Per Diode at 2A DC 单个二极管在2.2A电流下的正向峰值电压	V_F	1							V
Maximum DC Reverse Current at Rated @T_J=25℃ DC Blocking Voltage per Diode @T_J=125℃ 单个二极管在额定直流电压下的最大反向直流电流	I_R	5 500							μA
Typical junction Capacitance per element (Note 1)	C_J	30							pF
Typical Thermal Resistance to Ambient (Note2) 结到环境的典型热阻值（备注2 Typical Thermal Resistance to case (Note2) 结到壳的典型热阻值（备注2） Typical Thermal Resistance to lead (Note2) 结到引线的典型热阻值（备注2）	$R_{\theta JA}$ $R_{\theta JC}$ $R_{\theta JL}$	55 10 15							℃/W
Operating Junction Temperature Range 结温工作范围	T_J	-55 to +150							℃
Storage Temperature Range 储存温度范围	T_{STG}	-55 to +150							℃

Notes 1. Measured at 1.0 MHz and applied reverse voltage of 4.0V DC. 在 1.0MHz 下和反向电压为 4.0V DC下测试。
2.Thermal Resistance test performed in accordance with JESD-51. Unit mounted on glass-epoxy substrate with 1oz/ft2_20x20 mm copper pad per pin.
3.The typical data above is for reference only(典型值仅供参考).

Rating and Characteristic Curves 特性曲线

MSB20A THRU MSB20M

Fig. 1 - Forward Current Derating Curve

图1 正向电流降额曲线

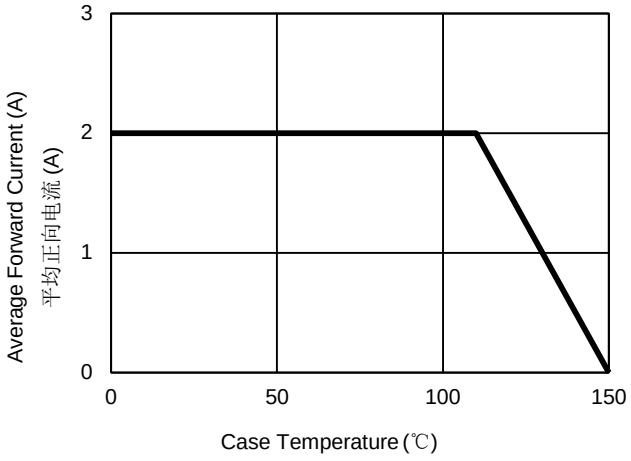


Fig. 2 - Maximum Non-Repetitive Surge Current

图2 最大不重 复向浪涌曲线

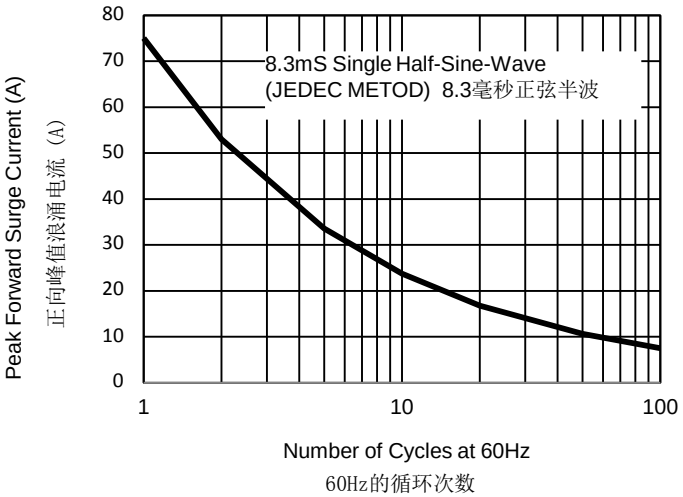


Fig. 3 - Typical Reverse Characteristics

图3 典型的反向特性

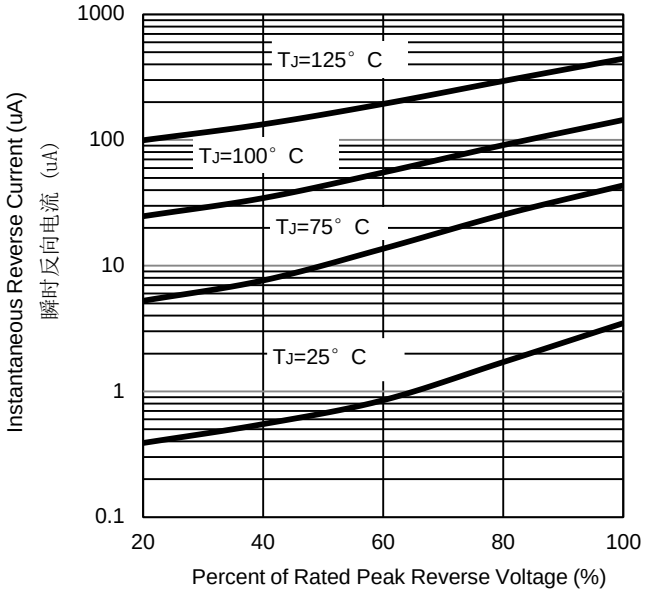


Fig. 4 - Typical Forward Characteristics

图4 典型的正向特性

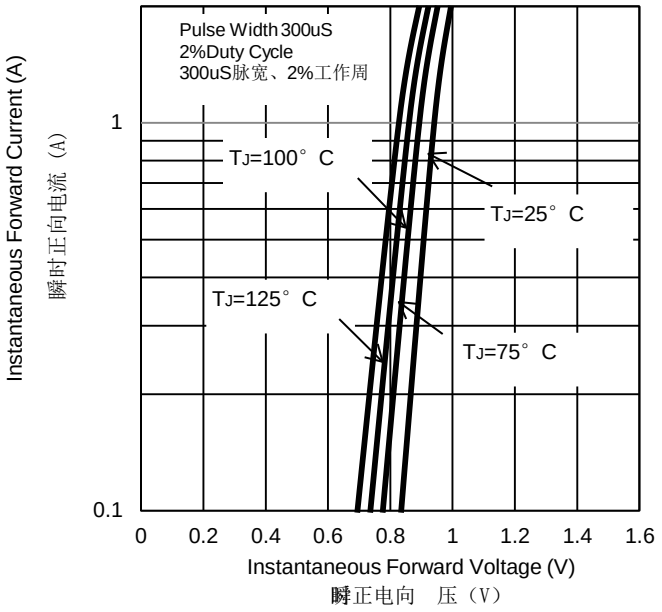
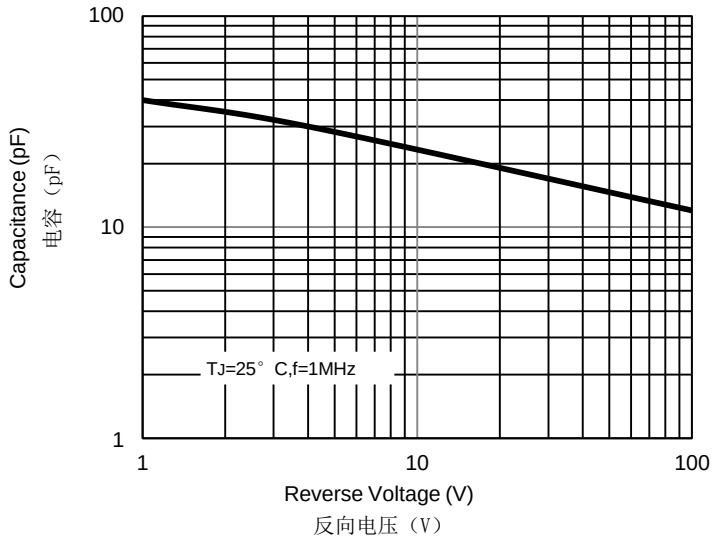


Fig. 5 - Typical Junction Capacitance

图5 典型的结电容



The curve above is for reference only. 曲线图仅供参考。