



肖特基二极管 SCHOTTKY Diodes

■特征 Features

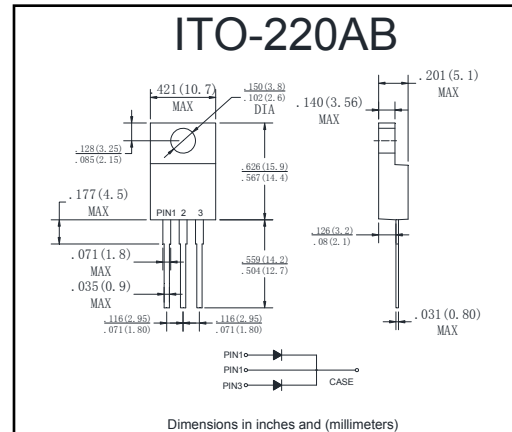
- 耐正向浪涌电流能力高
High surge forward current capability
- 低功耗, 大电流
Low Power loss, High efficiency

- I_o 10.0A
- V_{RRM} 200V

■用途 Applications

- 快速整流用
High speed switching

■外形尺寸和印记 Outline Dimensions and Mark



■极限值 (绝对最大额定值)

Limiting Values (Absolute Maximum Rating)

参数名称 Item	符号 Symbol	单位 Unit	条件 Condition	MBR10200FCT
反向重复峰值电压 Repetitive Peak Reverse Voltage	V_{RRM}	V		200
平均整流输出电流 Average Rectified Output Current	I_o	A	正弦半波 60Hz, 电阻负载, T_c (Fig.1) 60HZ Half-sine wave, Resistance load, T_c (Fig.1)	10
正向(不重复)浪涌电流 Surge(Non-repetitive)Forward Current	I_{FSM}	A	60Hz正弦波, 一个周期, $T_a=25^\circ\text{C}$ 60Hz sine wave, 1 cycle, $T_a=25^\circ\text{C}$	100
正向浪涌电流的平方对电流浪涌持续时间的积分值 Current Squared Time	I^2t	A^2s	$1\text{ms} \leq t < 8.3\text{ms}$ $T_j=25^\circ\text{C}$, 单个二极管 $1\text{ms} \leq t < 8.3\text{ms}$ $T_j=25^\circ\text{C}$, Rating of per diode	41
贮存温度 Storage Temperature	T_{stg}	$^\circ\text{C}$		-55 ~ +150
结温 Junction Temperature	T_j	$^\circ\text{C}$	在正向直流条件下, 没有施加反向电压, 通电 $\leq 1\text{h}$ (图示1) ① IN DC Forward Mode-Forward Operations, without reverse bias, $t \leq 1\text{h}$ (Fig. 1) ①	-55 ~ +150

■电特性 ($T_a=25^\circ\text{C}$ 除非另有规定)

Electrical Characteristics ($T_a=25^\circ\text{C}$ Unless otherwise specified)

参数名称 Item	符号 Symbol	单位 Unit	测试条件 Test Condition	最大值 Max	
正向峰值电压 Peak Forward Voltage	V_{FM}	V	$I_{FM} = 5.0\text{A}$	0.95	
反向峰值电流 Peak Reverse Current	I_{RRM1}	mA	$V_{RM} = V_{RRM}$	$T_a=25^\circ\text{C}$	0.05
	I_{RRM2}			$T_a=100^\circ\text{C}$	1
热阻 Thermal Resistance	$R_{\theta J-C}$	$^\circ\text{C}/\text{W}$	结和壳之间 Between junction and case	2.0	

■备注 NOTE

- ① Meets the requirement of IEC 61215 Ed. 2 bypass diode thermal test

■ 特性曲线 (典型) Characteristics(Typical)

图1: 正向电流降额曲线

FIG1: I_F (AV) -- T_c Derating

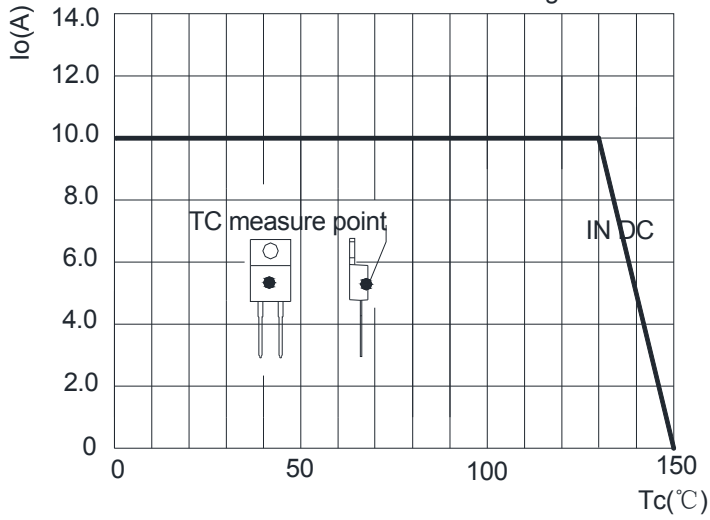


图2: 耐正向浪涌电流曲线

FIG2: Surge Forward Current Capability

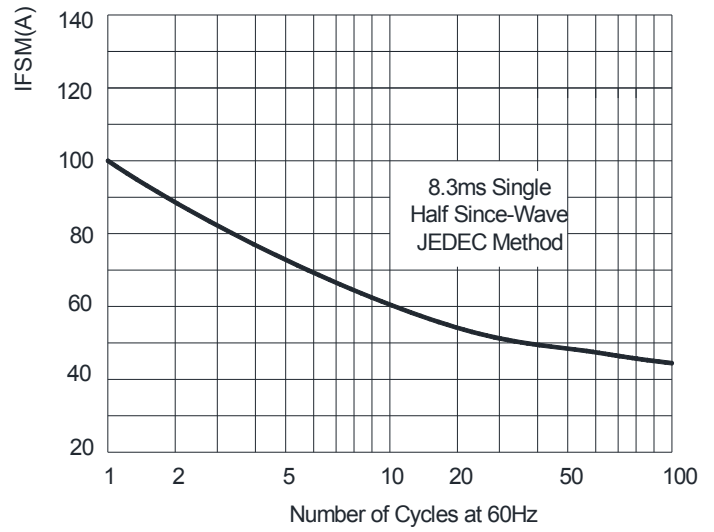


图3: 正向电压曲线

FIG3: Instantaneous Forward Voltage

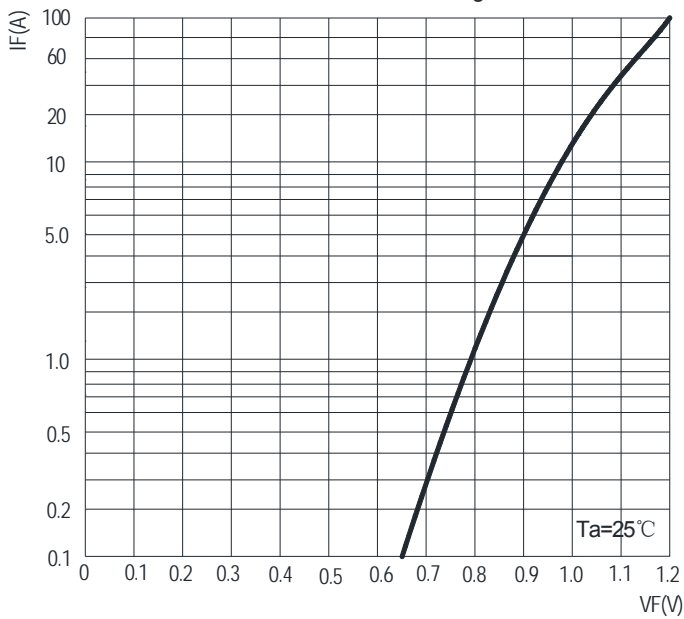


图4: 反向电流曲线

FIG4: Typical Reverse Characteristics

