



SHENZHEN TUOFENG SEMICONDUCTOR TECHNOLOGY CO. LTD

SCHOTTKY BARRIER RECTIFIER

MBR2045CT

主要参数 MAIN CHARACTERISTICS

I _{F(AV)}	20 (2x10) A
V _{RRM}	45 V
T _j	175 °C
V _{F(max)}	0.6V (@T _j =125°C)

用途

- 高频开关电源
- 低压续流电路和保护电
路

APPLICATIONS

- High frequency switch power supply
- Free wheeling diodes, polarity protection applications

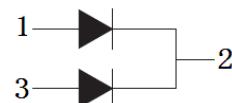
产品特性

- 共阴结构
- 低功耗，高效率
- 良好的高温特性
- 有过压保护环，高可靠性
- 环保（RoHS）产品

FEATURES

- Common cathode structure
- Low power loss, high efficiency
- High Operating Junction Temperature
- Guard ring for overvoltage protection, High reliability
- RoHS product

封装 Package



TO-263





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绝对最大额定值 ABSOLUTE RATINGS ($T_c=25^\circ\text{C}$)

项目 Parameter	符号 Symbol	数值 Value	单位 Unit
最大反向重复峰值电压 Repetitive peak reverse voltage	V_{RRM}	45	V
最大直流阻断电压 Maximum DC blocking voltage	V_{DC}	45	V
正向平均整流电流 Average forward current	$I_{F(AV)}$	20 10	A
正向峰值浪涌电流 Surge non repetitive forward current (额定负载 8.3ms 半正弦波—按 JEDEC 方法) 8.3 ms single half-sine-wave (JEDEC Method)	I_{FSM}	150	A
最高结温 Maximum junction temperature	T_j	175	$^\circ\text{C}$
储存温度 Storage temperature range	T_{STG}	-40~+150	$^\circ\text{C}$

电特性 ELECTRICAL CHARACTERISTICS

项目 Parameter	测试条件 Tests conditions		最小值 Value(min)	典型值 Value(typ)	最大值 Value(max)	单位 Unit
I_R	$T_j = 25^\circ\text{C}$	$V_R = V_{RRM}$			20	μA
	$T_j = 125^\circ\text{C}$				20	mA
V_F	$T_j = 25^\circ\text{C}$	$I_F = 10\text{A}$		0.63	0.7	V
	$T_j = 125^\circ\text{C}$			0.56	0.6	V

热特性 THERMAL CHARACTERISTICS

项目 Parameter	符号 Symbol	最小值 Value(min)	最大值 Value(max)	单位 Unit
结到管壳的热阻 Thermal resistance from junction to case	$R_{th(j-c)}$		1.7 2.7 2.7	$^\circ\text{C}/\text{W}$



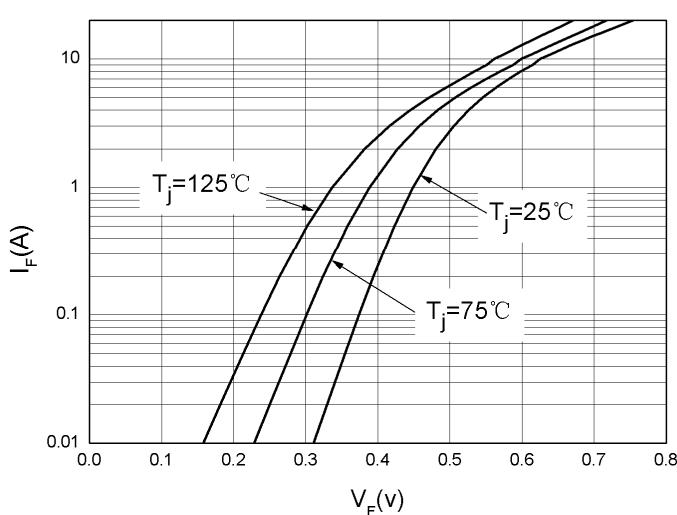
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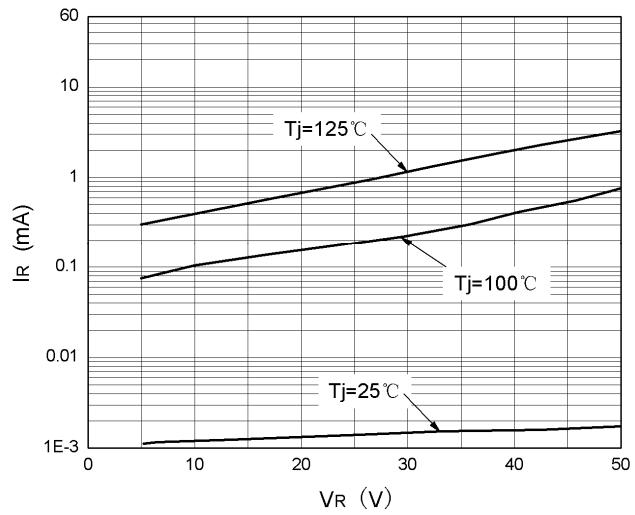
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特征曲线 ELECTRICAL CHARACTERISTICS (curves)

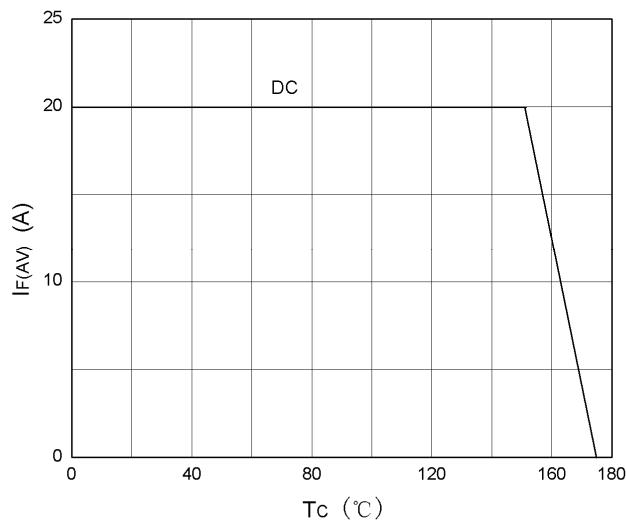
I_F vs V_F



I_R vs V_R



$I_{F(AV)}$ vs T_C



C_T vs V_R

