

主要参数 MAIN CHARACTERISTICS

$I_{F(AV)}$	10 (2x5) A
V_{RRM}	100 V
T_j	175 °C
$V_{F(max)}$	0.7V (@ $T_j=125^\circ\text{C}$)

用途

- 高频开关电源
- 低压续流电路和保护电路

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

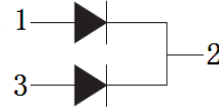
APPLICATIONS

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

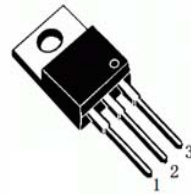
FEATURES

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

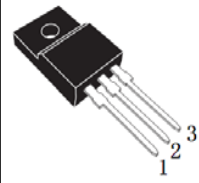
封装 Package



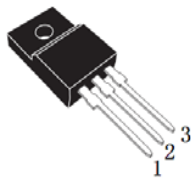
T0-220



T0-220F



T0-220BF



T0-220HF





绝对最大额定值 ABSOLUTE RATINGS (Tc=25°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}	100	V
最大直流阻断电压 Maximum DC blocking voltage		V_{DC}	100	V
正向平均整流电流 Average forward current	$T_C=150^\circ\text{C}$ (TO-220)	整个器件 per device	10	A
	$T_C=125^\circ\text{C}$ (TO-220F TO-220BF TO-220HF)			
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}	80	A
最高结温 Maximum junction temperature		T_j	175	°C
储存温度 Storage temperature range		T_{STG}	-40~+150	°C

电特性 ELECTRICAL CHARACTERISTICS

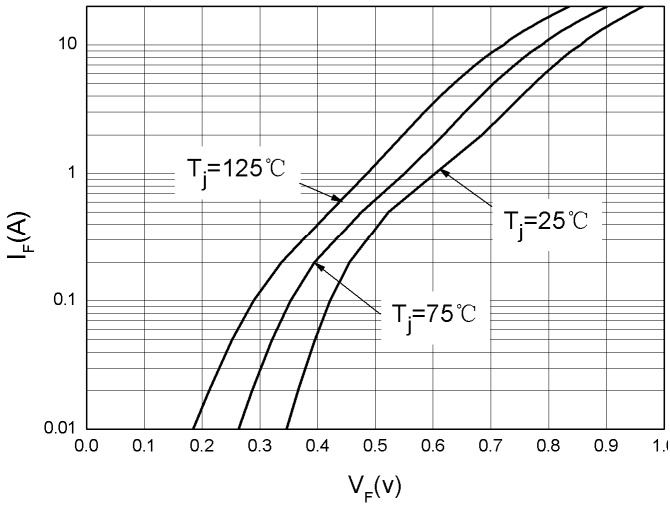
项 目 Parameter	测试条件 Tests conditions		最小值 Value(min)	典型值 Value(typ)	最大值 Value(max)	单 位 Unit
I_R	$T_j = 25^\circ\text{C}$	$V_R = V_{RRM}$			10	μA
	$T_j = 125^\circ\text{C}$				5	mA
V_F	$T_j = 25^\circ\text{C}$	$I_F = 5\text{A}$		0.77	0.83	V
	$T_j = 125^\circ\text{C}$			0.65	0.7	V
	$T_j = 25^\circ\text{C}$	$I_F = 10\text{A}$		0.85	0.9	V
	$T_j = 125^\circ\text{C}$			0.73	0.8	V

热特性 THERMAL CHARACTERISTICS

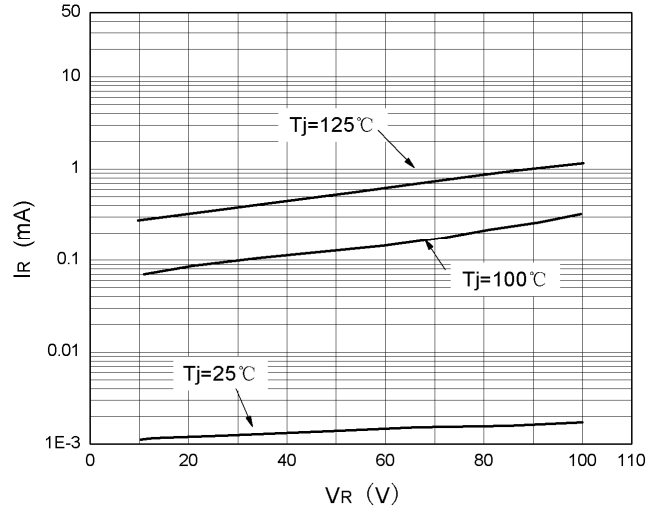
项 目 Parameter		符 号 Symbol	最小值 Value(min)	最大值 Value(max)	单 位 Unit
结到管壳的热阻 Thermal resistance from junction to case	TO-220	$R_{th(j-c)}$		1.9	°C/W
	TO-220F			2.5	
	TO-220BF			2.5	
	TO-220HF			2.5	

特征曲线 ELECTRICAL CHARACTERISTICS (curves)

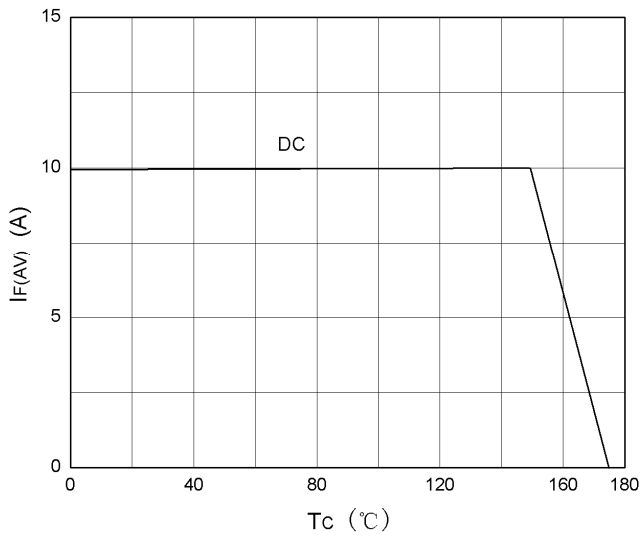
I_F vs V_F



I_R vs V_R



$I_{F(AV)}$ vs T_c



C_T vs V_R

