



# 20F60UMF

## 主要参数 MAIN CHARACTERISTICS

IF(AV)	20A
VRRM	600 V
VF(typ)	2.0V
trr (typ)	25ns

## 封装 Package



## 用途

- 吸收回路
- 开关电源
- UPS

## APPLICATIONS

- Snubber diode
- Switch power supply
- UPS

## 产品特性

- 低功耗，高效率
- 高浪涌电流
- 高可靠性
- 环保（RoHS）产品

## FEATURES

- Low power loss, high efficiency
- High surge current capability
- High reliability
- RoHS product

## 订货信息 ORDER MESSAGE

订货型号 Order codes		印记 Marking	封装 Package
有卤-条管 Halogen-Tube	无卤-条管 Halogen Free-Tube		
20F60UMF-FK-B	20F60UMF-FK-BR	20F60UMF	TO-220MF2L-K1



**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 <sub>RRM</sub>	600	V
正向平均整流电流 Average forward Current T <sub>c</sub> =100°C	I <sub>F(AV)</sub>	20	A
峰值单脉冲浪涌电流 Peak one Cycle Surge Forward Current(Non-Repetitive) t=10ms	I <sub>FSM</sub>	180	A
结温 Junction Temperature	T <sub>j</sub>	-50~+150	°C
储存温度 Storage temperature range	T <sub>STG</sub>	-50~+150	°C

**电特性 ELECTRICAL CHARACTERISTICS (Tc=25°C unless otherwise specified)**

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
V <sub>RRM</sub>	I <sub>R</sub> = 50μA		600	660		V
I <sub>R</sub>	T <sub>j</sub> = 25°C	V <sub>R</sub> = V <sub>RRM</sub>			10	μA
	T <sub>j</sub> = 125°C				400	μA
V <sub>F</sub>	T <sub>j</sub> = 25°C	I <sub>F</sub> = 20A		2.0	2.5	V
	T <sub>j</sub> = 125°C				2.3	V
T <sub>rr</sub>	I <sub>F</sub> = 0.5A, I <sub>R</sub> = 1A, I <sub>RR</sub> = 0.25A			25	35	ns
trr	I <sub>F</sub> = 20A, V <sub>R</sub> = 400V, di <sub>F</sub> /dt = -200A/μs T <sub>c</sub> = 25°C		-	40	-	ns
Q <sub>rr</sub>			-	34	-	nc
I <sub>RRM</sub>			-	1.53	-	A
trr			-	132.6	-	ns
Q <sub>rr</sub>	I <sub>F</sub> = 20A, V <sub>R</sub> = 400V, di <sub>F</sub> /dt = -200A/μs T <sub>c</sub> = 125°C		-	441.2	-	nc
I <sub>RRM</sub>			-	5.8	-	A
CT	V <sub>R</sub> = 100V F = 1Mhz			35		pF

**热特性 THERMAL CHARACTERISTICS**

项 目 Parameter	符 号 Symbol	最大值 Value(max)	单 位 Unit
结到管壳的热阻 Thermal resistance from junction to case	R <sub>th(j-c)</sub>	3.8	°C/W





### 特征曲线 ELECTRICAL CHARACTERISTICS (curves)

Fig.1 TYPICAL FORWARD CHARACTERISTICS

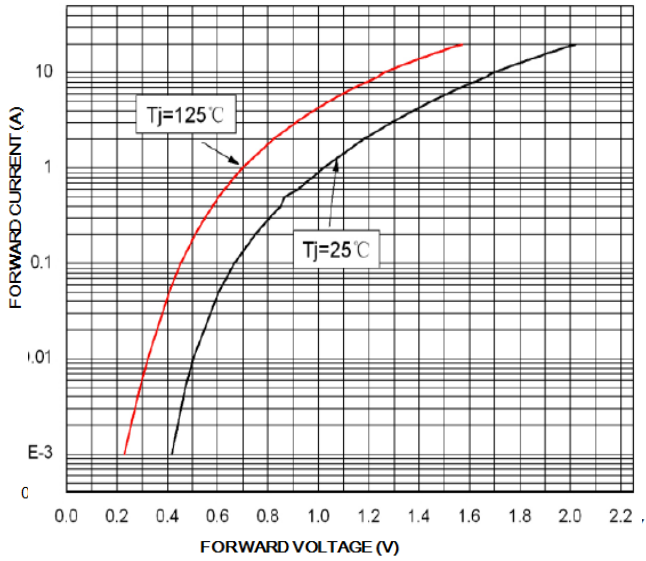


Fig.2 TYPICAL REVERSE CHARACTERISTICS

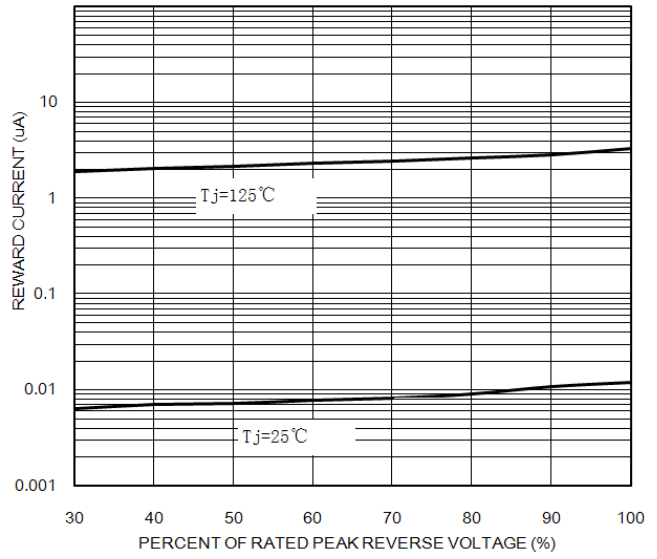


Fig.3 TYPICAL JUNCTION CAPACITANCE

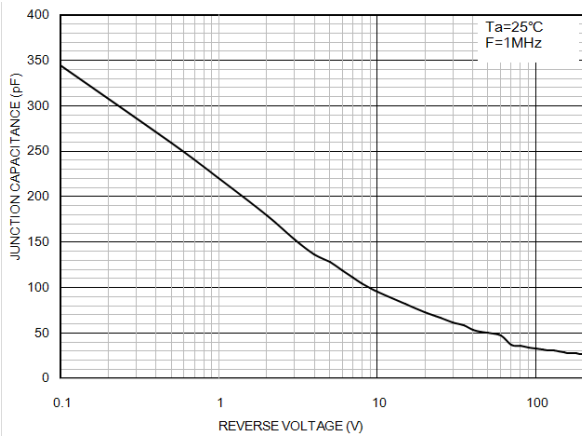
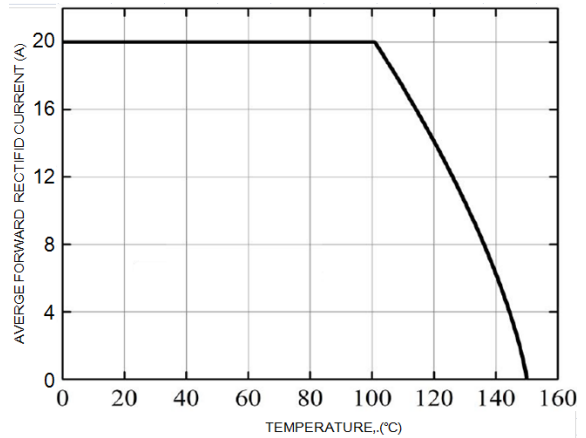


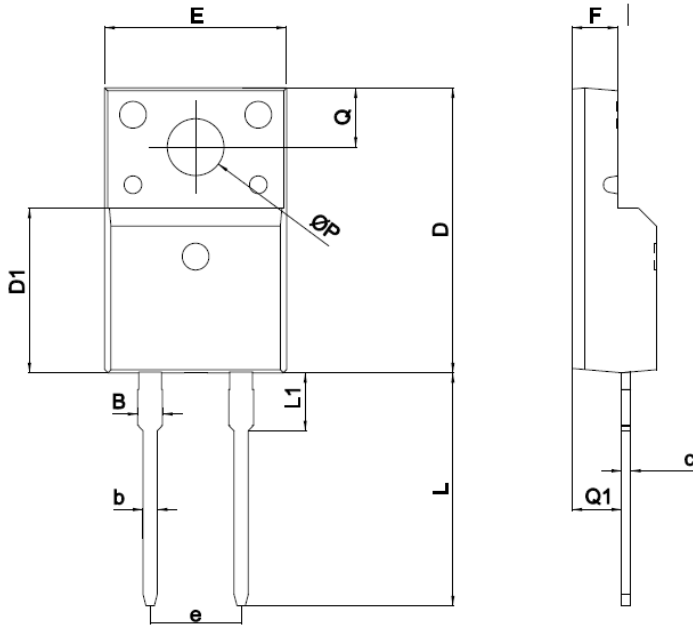
Fig.4 FORWARD CURRENT DERATING CURVE





TO-220MF2L-K1

单位 Unit : mm



SYMBOL	mm	
	MIN	MAX
A	4.5	4.9
B	1.22	1.47
b	0.7	0.9
c	0.45	0.60
D	15.6	16.1
D1	9.0	9.3
e	5.08TYPE	
E	9.9	10.4
F	2.3	2.8
L	12.6	13.3
L1	3.1	3.4
Q	3.2	3.4
Q1	2.6	2.9
ΦP	3.0	3.5



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3. 在电路设计时请不要超过器件的绝对最大额定值，否则会影响整机的可靠性。
4. 本说明书如有版本变更不另外告知

**NOTES**

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3. Please do not exceed the absolute maximum ratings of the device when circuit designing.
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