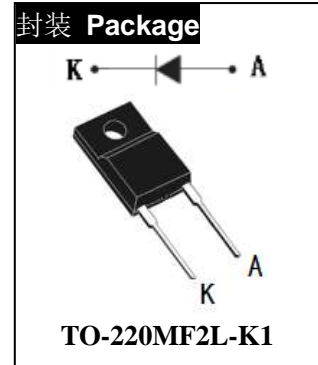




FP30F60BA

主要参数 MAIN CHARACTERISTICS

$I_F(AV)$	30A
V_{RRM}	600 V
$V_F(typ)$	1.9V
$T_{rr} (typ)$	30ns



用途

- 有源 PFC
- 开关电源
- 光伏逆变
- 高频开关器件并联二极管

APPLICATIONS

- Active PFC
- Switch power supply
- Photovoltaic inverter
- Antiparalle Diode for high frequency switching devices

产品特性

- 超快恢复时间
- 低恢复损耗
- 低漏电流

FEATURES

- Ultrafast Recovery Time
- Low Recovery Loss
- Low Leakage Current

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		
FP30F60BA-FK-B	FP30F60BA -FK-BR	FP30F60BA	TO-220MF2L-K1

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
反向重复峰值电压 Peak Repetitive Reverse Voltage	V_{RRM}	600	V
平均正向整流电流 $T_C=110^\circ\text{C}$ Average Forward Rectified Current	$I_{F(AV)}$	30	A
非重复浪涌正向电流 Non-Repetitive Surge Forward Current $t=8.3\text{ms}$	I_{FSM}	320	A
结温 Junction Temperature	T_j	-55~+150	$^\circ\text{C}$
存储温度 Storage temperature range	T_{STG}	-55~+150	$^\circ\text{C}$

电特性 ELECTRICAL CHARACTERISTICS ($T_C=25^\circ\text{C}$ 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_R	$I_R=50\mu\text{A}$		600	-	-	V
I_R	$T_j=25^\circ\text{C}$	$V_R=V_{RRM}$	-	-	10	μA
	$T_j=125^\circ\text{C}$		-	-	500	μA
V_F	$T_j=25^\circ\text{C}$	$I_F=30\text{A}$	-	1.9	2.5	V
	$T_j=125^\circ\text{C}$		-	1.5	2.1	V
t_{rr}	$I_F=0.5\text{A}, I_R=1\text{A}, I_{RR}=0.25\text{A}$		-	30	40	ns
t_{rr}	$I_F=1\text{A}, V_R=30\text{V}, di_F/dt=-100\text{A}/\mu\text{s}$		-	22	30	ns
t_{rr}	$I_F=30\text{A}, V_R=200\text{V}, di_F/dt=-200\text{A}/\mu\text{s}$		-	35	-	ns
Q_{rr}	$T_C=25^\circ\text{C}$		-	110	-	nc
I_{RRM}			-	3.2	-	A
t_{rr}	$I_F=30\text{A}, V_R=200\text{V}, di_F/dt=-200\text{A}/\mu\text{s}$		-	72	-	ns
Q_{rr}	$T_C=125^\circ\text{C}$		-	503	-	nc
I_{RRM}			-	7.1	-	A





热特性 THERMAL CHARACTERISTICS (maximum)

项 目 Parameter	符 号 Symbol	最大值 Value(max)	单 位 Unit
结到管壳的热阻 Thermal Resistance Junction to Case	$R_{th(j-c)}$	3.5	$^{\circ}C/W$

特征曲线 ELECTRICAL CHARACTERISTICS (curves)

Fig.1 TYPICAL FORWARD CHARACTERISTICS

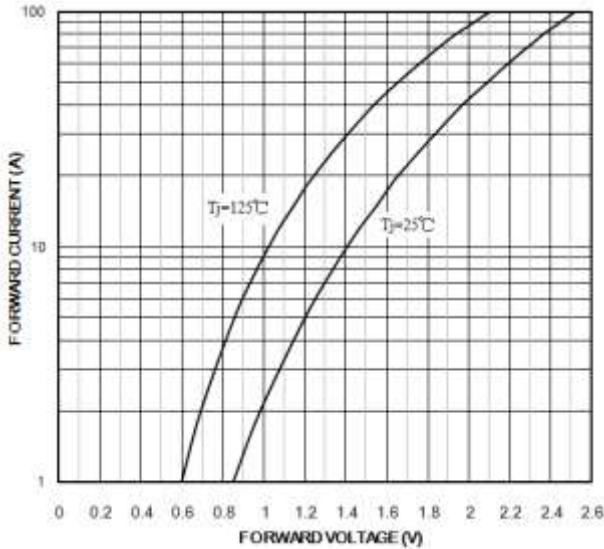


Fig.2 TYPICAL REVERSE CHARACTERISTICS

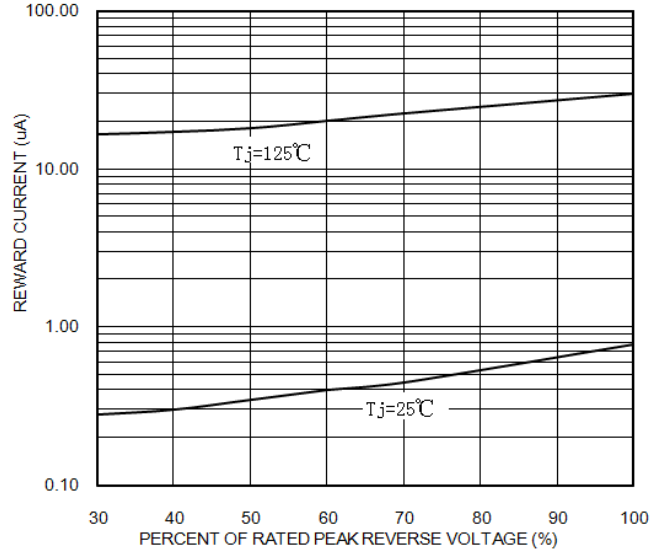


Fig.3 Reverse recovery time versus diF/dt

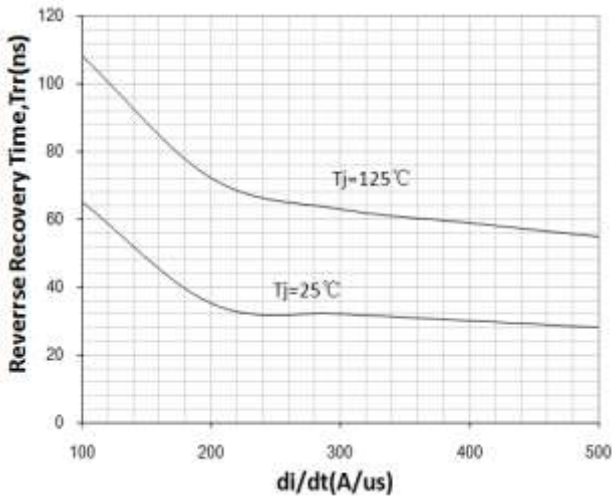


Fig.4 Peak reverse recovery current versus diF/dt

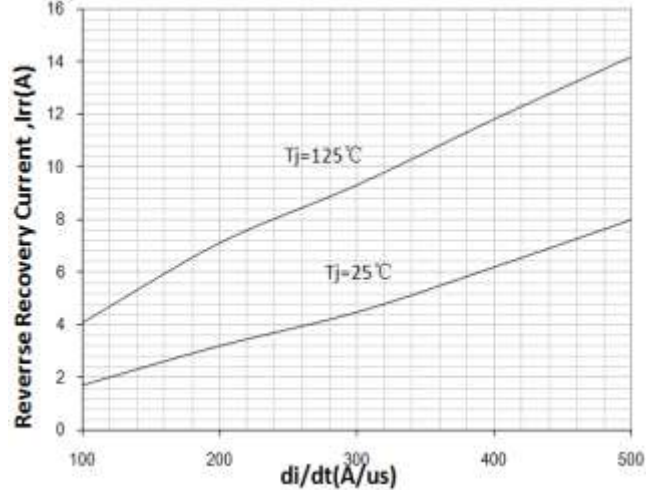
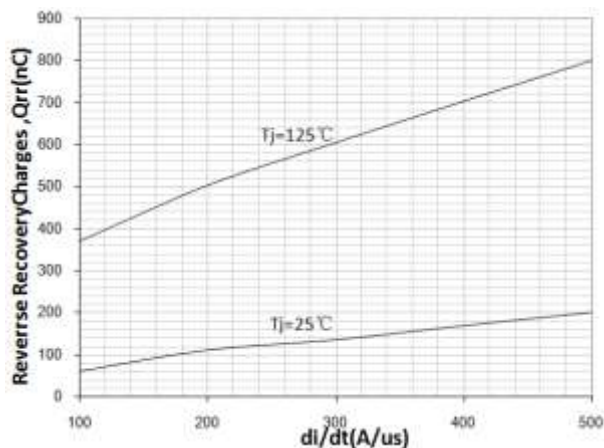


Fig.5 Reverse recovery charges versus diF/dt

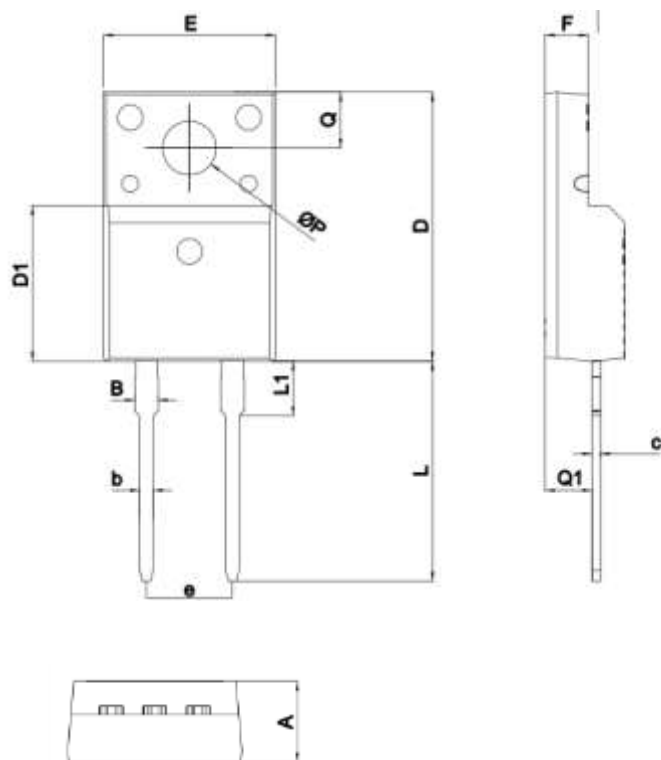




外形尺寸 PACKAGE MECHANICAL DATA

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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