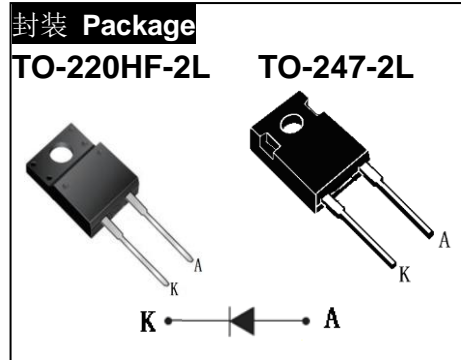




FP30F60BA

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-FL-B	FP30F60BA -FL-BR	FP30F60BA	TO-220HF-2L
FP30F60BA-GL-B	FP30F60BA-GL-BR	FP30F60BA	TO-247-2L

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
trr	$I_F=0.5\text{A}, I_R=1\text{A}, I_{RR}=0.25\text{A}$		-	30	40	ns
trr	$I_F=1\text{A}, V_R=30\text{V}, di_F/dt=-100\text{A}/\mu\text{s}$		-	22	30	ns
trr	$I_F=30\text{A}, V_R=200\text{V}, di_F/dt=-200\text{A}/\mu\text{s}$ $T_c=25^\circ\text{C}$		-	35	-	ns
Qrr			-	110	-	nc
I_{RRM}			-	3.2	-	A
trr	$I_F=30\text{A}, V_R=200\text{V}, di_F/dt=-200\text{A}/\mu\text{s}$ $T_c=125^\circ\text{C}$		-	72	-	ns
Qrr			-	503	-	nc
I_{RRM}			-	7.1	-	A

热特性 THERMAL CHARACTERISTICS (maximum)

项 目 Parameter	符 号 Symbol	封装 Package	最大值 Value(max)	单 位 Unit
结到管壳的热阻 Thermal Resistance Junction to Case	$R_{th(j-c)}$	TO-220HF-2L	3.5	$^\circ\text{C}/\text{W}$
		TO-247-2L	0.75	$^\circ\text{C}/\text{W}$





特征曲线 ELECTRICAL CHARACTERISTICS (curves)

Fig.1 TYPICAL FORWARD CHARACTERISTICS

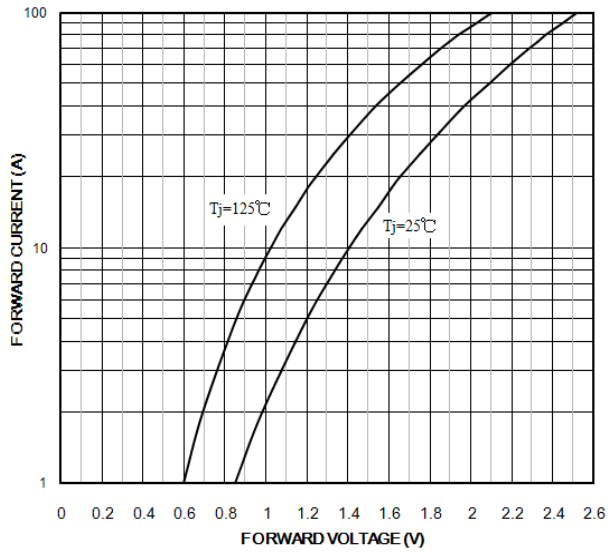


Fig.2 TYPICAL REVERSE CHARACTERISTICS

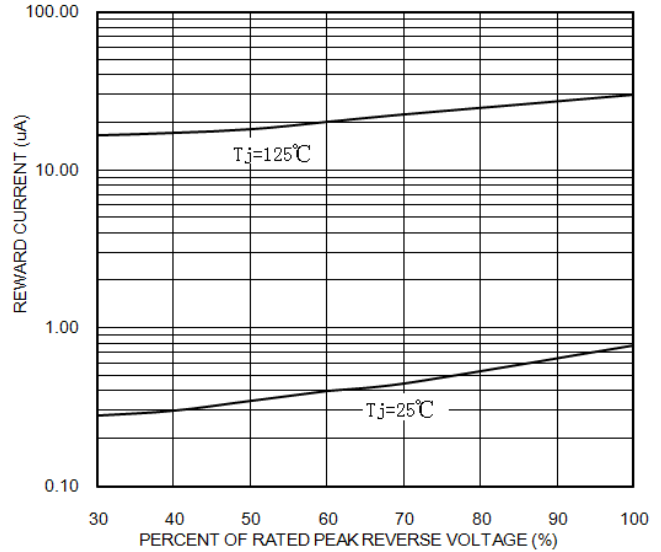


Fig.3 Reverse recovery time versus diF/dt

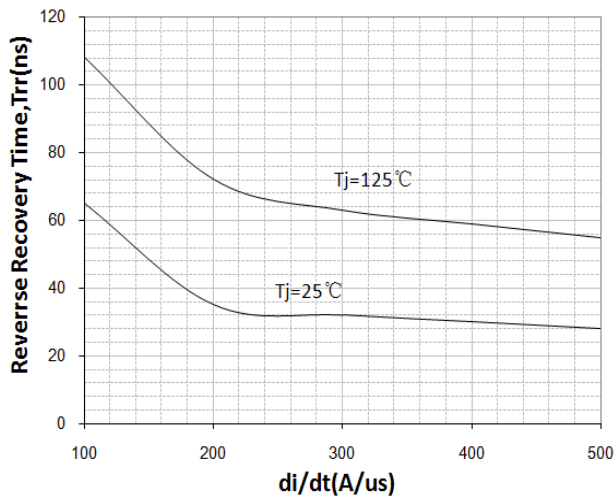


Fig.4 Peak reverse recovery current versus diF/dt

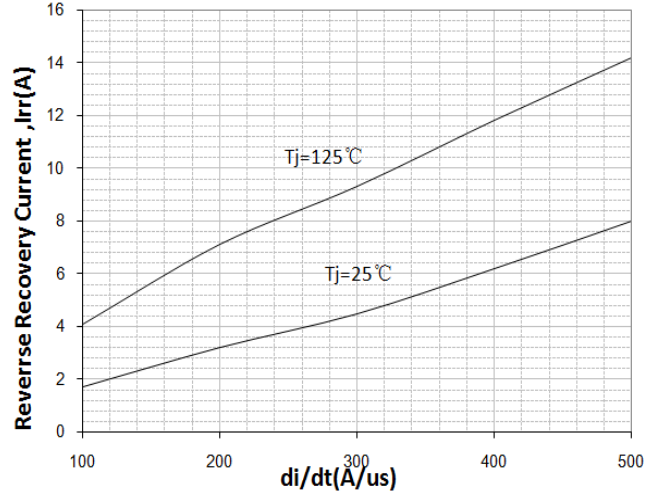
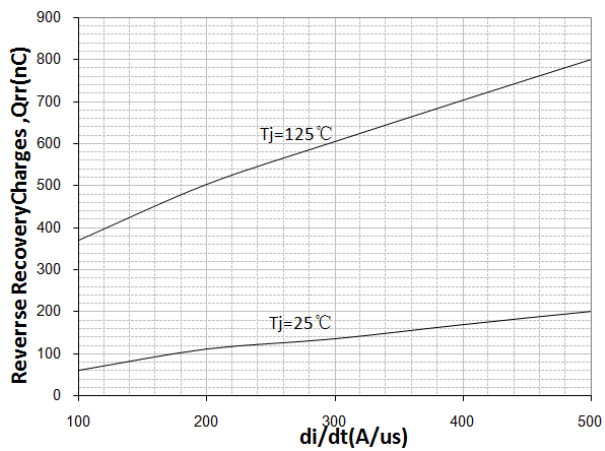


Fig.5 Reverse recovery charges versus diF/dt

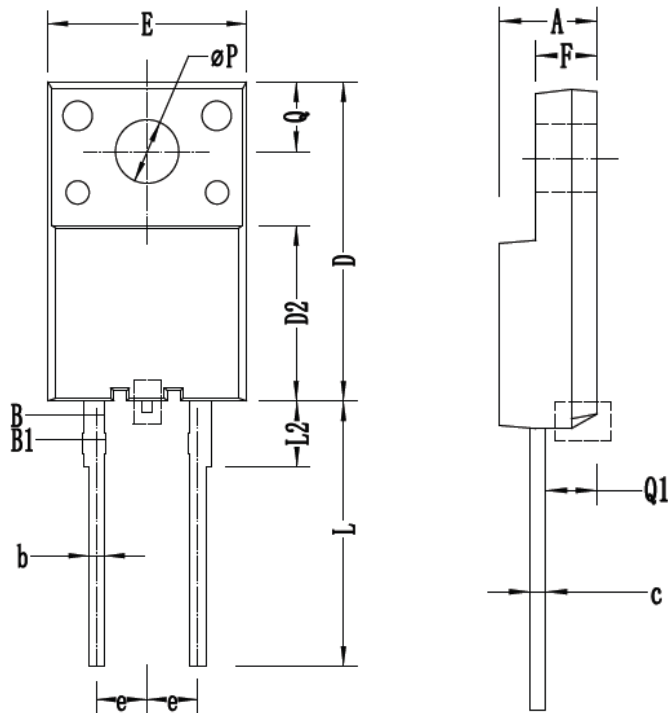




外形尺寸 PACKAGE MECHANICAL DATA

TO-220HF-2L

单位 Unit : mm



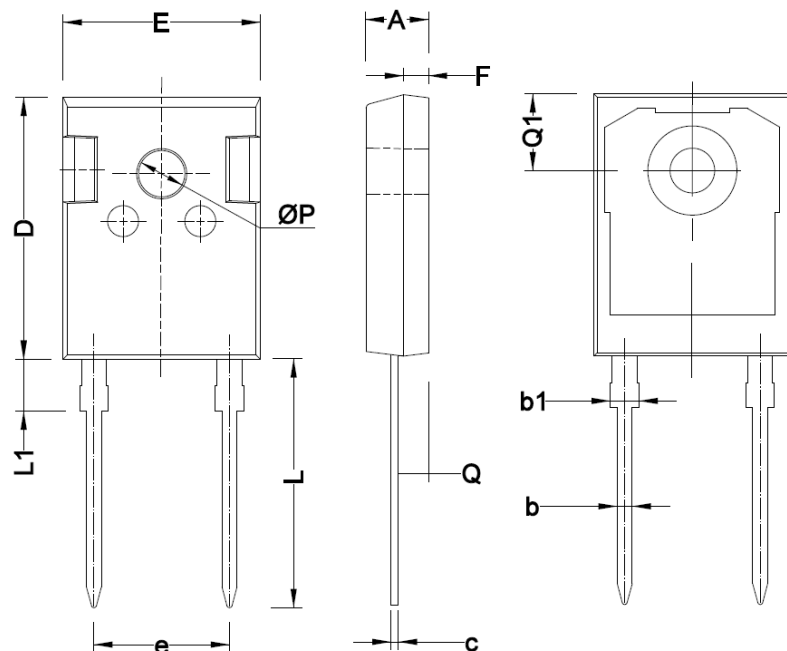
mm		
SYMBOL	MIN	MAX
A	4.00	5.00
B1	0.87	1.27
B	0.82	1.22
b	0.72	0.92
c	0.50	0.70
D	15.00	16.50
D2	7.80	9.40
E	9.62	10.62
e	2.54TYP	
F	2.30	3.30
L	12.00	14.00
L2	3.10	3.50
ΦP	3.00	3.40
Q	3.15	3.55
Q1	2.20	2.50

注:

1. 虚框区域表示: 塑封体下方有、无余留, 塑封体背面有、无台阶, 均为我司受控外形;

TO-247-2L

单位 Unit : mm



SYMBOL	MM	
	MIN	MAX
A	4.80	5.20
b	1.10	1.30
b1	1.95	2.25
c	0.50	0.70
D	20.80	21.20
E	15.60	16.00
F	1.85	2.15
e	10.73	11.03
L	19.62	20.22
L1	3.93	4.33
ΦP	3.40	3.80
Q	2.26	2.56
Q1	6.00	6.40



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