



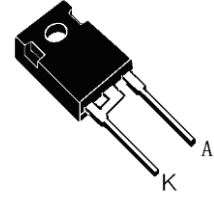
# 30F60W

## 主要参数 MAIN CHARACTERISTICS

$I_F(AV)$	30A
$V_{RRM}$	600 V
$V_F(typ)$	2.0V
$T_{rr}(typ)$	25ns

## 封装 Package

TO-247-2L



## 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		
30F60W -GL-B	30F60W -GL-BR	30F60W	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
最大反向重复峰值电压 Repetitive peak reverse voltage	$V_{RRM}$	600	V
正向平均整流电流 Average forward current $T_c=110^\circ\text{C}$	$I_{F(AV)}$	30	A
峰值单脉冲浪涌电流 Peak one Cycle Surge Forward Current(Non-Repetitive) $t=8.3\text{ms}$	$I_{FSM}$	300	A
雪崩耐量 Avalanche Energy (1A, 40mH)	$E_{AVL}$	20	mJ
结温 Junction Temperature	$T_j$	-55~+150	$^\circ\text{C}$
储存温度 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
$V_{RRM}$	$I_R=50\mu\text{A}$	600			V
$I_R$	$T_j=25^\circ\text{C}$			25	$\mu\text{A}$
	$T_j=125^\circ\text{C}$			$V_R=V_{RRM}$	500
$V_F$	$T_j=25^\circ\text{C}$			2.0	V
	$T_j=125^\circ\text{C}$			$I_F=30\text{A}$	1.7
$trr$	$I_F=1\text{A}, V_R=30\text{V}, di_F/dt=-100\text{A}/\mu\text{s}$ $T_c=25^\circ\text{C}$		26	35	ns
$trr$	$I_F=30\text{A}, V_R=200\text{V}, di_F/dt=-200\text{A}/\mu\text{s}$ $T_c=25^\circ\text{C}$		30		ns
$Q_{rr}$			23		nc
$I_{RRM}$			1.5		A
$trr$		$I_F=30\text{A}, V_R=200\text{V}, di_F/dt=-200\text{A}/\mu\text{s}$ $T_c=125^\circ\text{C}$		86	
$Q_{rr}$			160		nc
$I_{RRM}$			3.7		A
$CT$	$V_R=200\text{V}$		33		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 Junction to Case	$R_{th(j-c)}$	0.8	$^\circ\text{C}/\text{W}$





### 特征曲线 ELECTRICAL CHARACTERISTICS (curves)

Fig.1 TYPICAL FORWARD CHARACTERISTICS

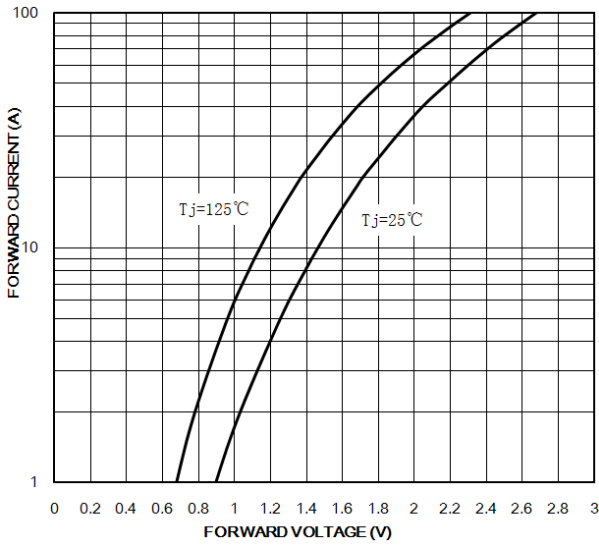


Fig.2 TYPICAL REVERSE CHARACTERISTICS

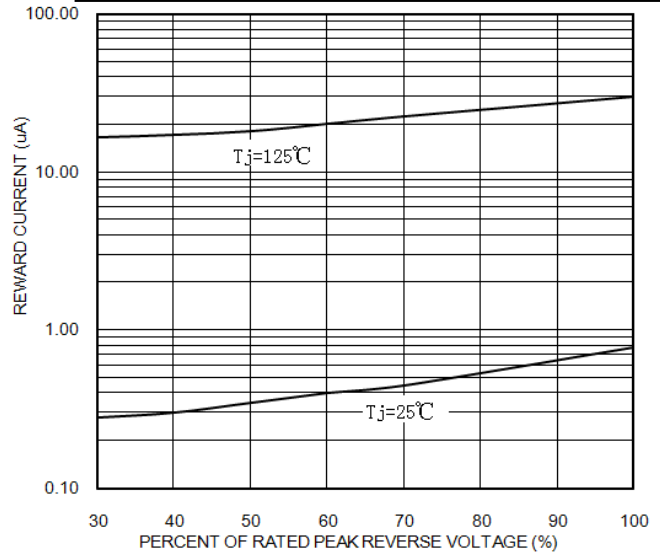


Fig.3 Reverse recovery time versus diF/dt

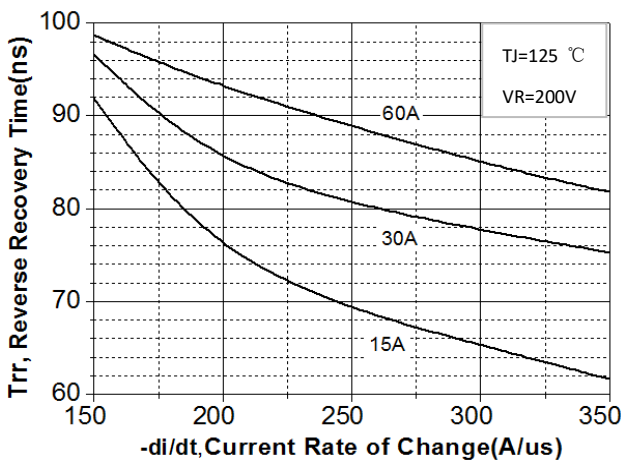


Fig.4 Peak reverse recovery current versus diF/dt

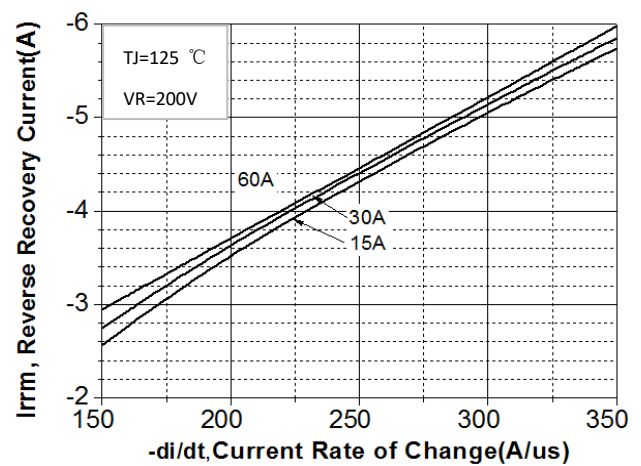


Fig.5 Reverse recovery charges versus diF/dt

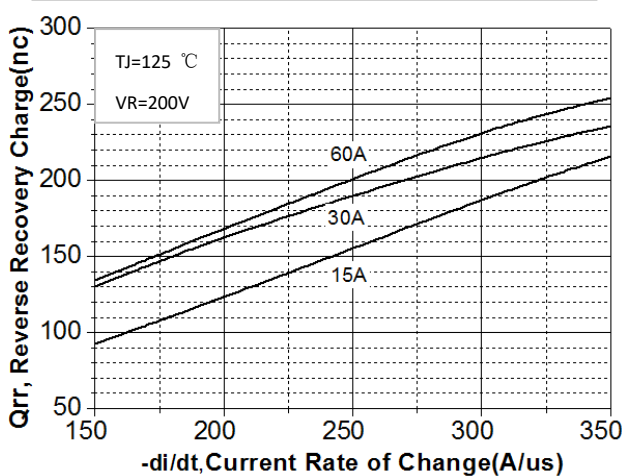
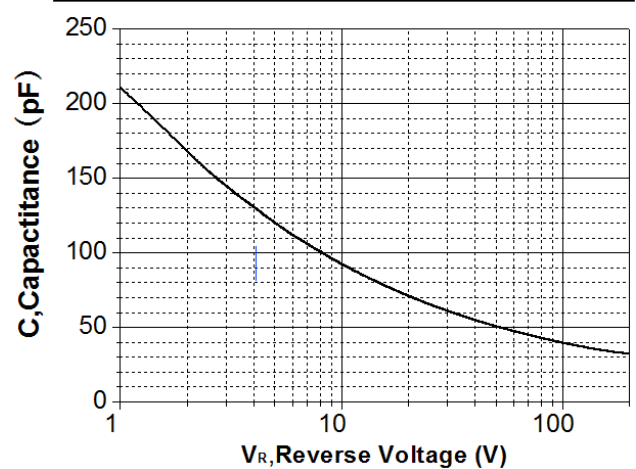


Fig.6 TYPICAL JUNCTION CAPACITANCE



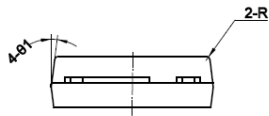
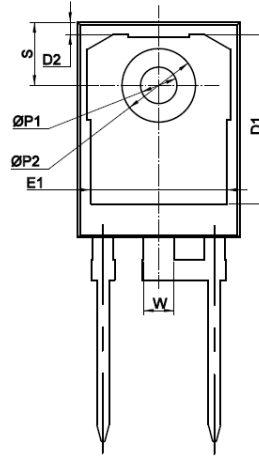
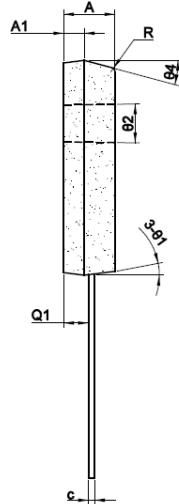
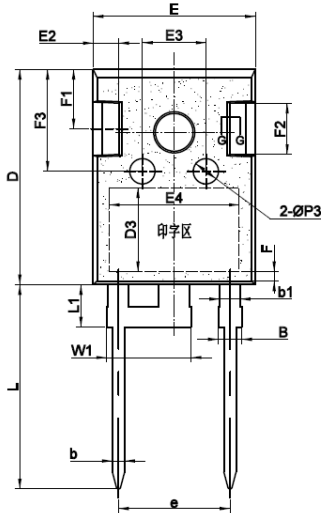


30F60W

外形尺寸 PACKAGE MECHANICAL DATA

TO-247-2L

单位 Unit : mm



SYMBOL	MM		
	MIN	NOM	MAX
*A	4.90	5.00	5.10
A1	1.90	2.00	2.10
*B	2.00	2.10	2.20
*b	1.15	1.20	1.25
b1	1.95	2.00	2.05
*c	0.55	0.60	0.65
*D	20.90	21.00	21.10
D1	16.45	16.55	16.65
D2	1.07	1.17	1.27
D3	8.15	8.20	8.25
*e	10.83	10.88	10.93
*E	15.70	15.80	15.90
E1	13.16	13.26	13.36
E2	2.40	2.50	2.60
E3	6.10	6.20	6.30
E4	12.70	12.80	12.90
F1	5.70	5.80	5.90
F2	4.90	5.00	5.10
F3	9.90	10.00	10.10
F4	0.75	0.85	0.95
*L	19.72	19.92	20.12
*L1	4.03	4.13	4.23
Ø1	5°	7°	9°
Ø2	1°	2°	3°
Ø4	13°	15°	17°
*ØP1	3.50	3.60	3.70
ØP2	7.09	7.19	7.29
ØP3	2.40	2.50	2.60
*Q1	2.31	2.41	2.51
S	6.05	6.15	6.25
R	0.30	0.40	0.50
W	2.95	3.00	3.05
W1	8.14	8.24	8.34



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