



30F60A3

主要参数 MAIN CHARACTERISTICS

IF(AV)	15×2 A
VRRM	600 V
Tj(max)	150℃
VF(typ)	1.45V
trr (typ)	31ns

用途

- UPS
- 开关电源
- PFC
- 逆变焊机

APPLICATIONS

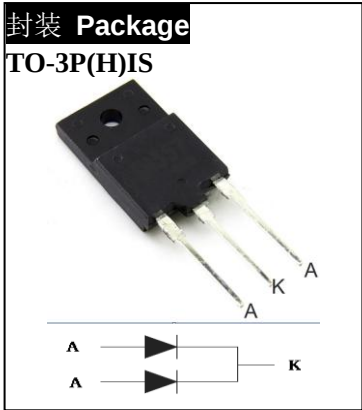
- UPS
- Switch power supply
- PFC
- Inversion Welder

产品特性

- 低正向压降
- 低 IRM 和 Qrr
- 高可靠性
- 环保（RoHS）产品

FEATURES

- Low Forward Voltage
- Low IRM and reverse recovery charge
- 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		
30F60A3-GA-B	30F60A3-GA-BR	30F60A3	TO-3P(H)IS

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
最大反向工作峰值电压 Working Peak Reverse Voltage		V_{RWM}	600	V
平均正向整流电流 $T_c=100^{\circ}\text{C}$ Average Forward Rectified Current	Per Package	$I_{F(AV)}$	30	A
	Per Diode		15	
非重复浪涌正向电流 Non-Repetitive Surge Forward Current $t=8.3\text{ms}$		I_{FSM}	180	A
雪崩能量 Avalanche Energy(per diode) $L=40\text{mH}$		E_{AVL}	20	mJ
结温 Junction Temperature		T_j	$-50\sim+150$	$^{\circ}\text{C}$
储存温度 Storage temperature range		T_{STG}	$-50\sim+150$	$^{\circ}\text{C}$

电特性 ELECTRICAL CHARACTERISTICS ($T_c=25^{\circ}\text{C}$ unless otherwise specified) per diode

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 =50μA		600	680		V
I _R	T _j =25℃	V _R =V _{RRM}			10	μA
	T _j =125℃				250	μA
V _F	T _j =25℃	I _F =15A		1.45	1.8	V
	T _j =125℃			1.2	1.6	V
C _j	V _R = 4.0V, f = 1.0 MHz			100		pF
T _{rr}	I _F =1A, V _R =30V, di _F /dt=-200A/μs			31	45	ns
T _{rr}	I _F =0.5A,I _R =1.0A,I _{RR} =0.25A			27	40	ns
T _{rr}	I _F =15A, V _R =400V, di _F /dt=200A/μs T _j =125℃			165		ns
I _{RM}				6.2		A
Q _{rr}				638		nc

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	$R_{th(j-c)}$	2.8	$^{\circ}\text{C}/\text{W}$





特征曲线 ELECTRICAL CHARACTERISTICS (curves)

Fig.1 TYPICAL FORWARD CHARACTERISTICS

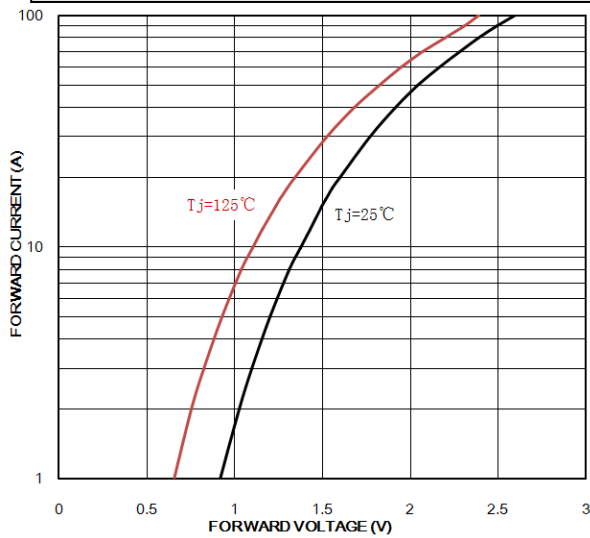


Fig.2 TYPICAL REVERSE CHARACTERISTICS

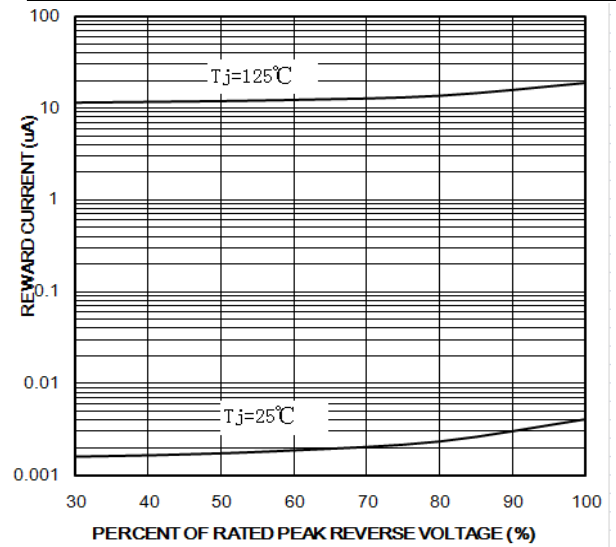


Fig.3 FORWARD CURRENT DERATING CURVE

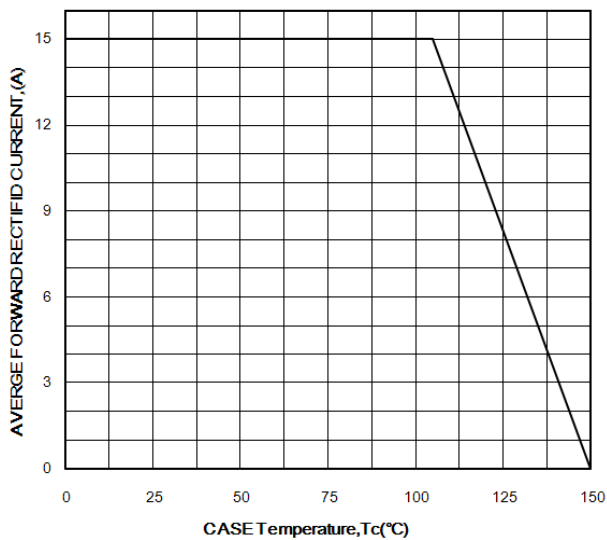


Fig.4 TYPICAL JUNCTION CAPACITANCE

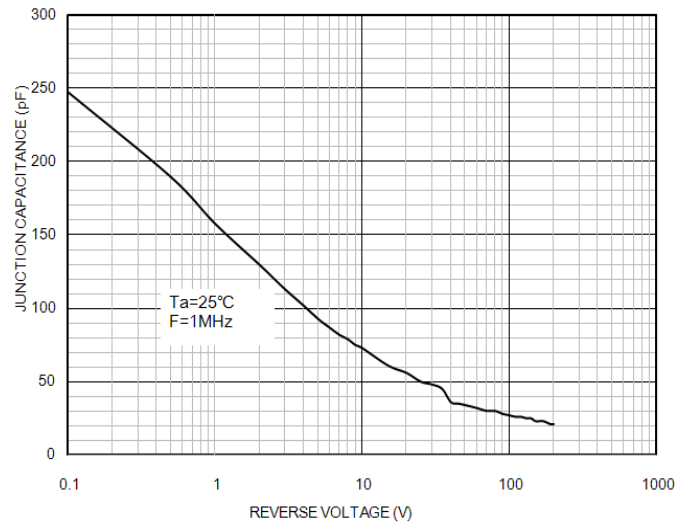


Fig.5 Reverse recovery time versus diF/dt

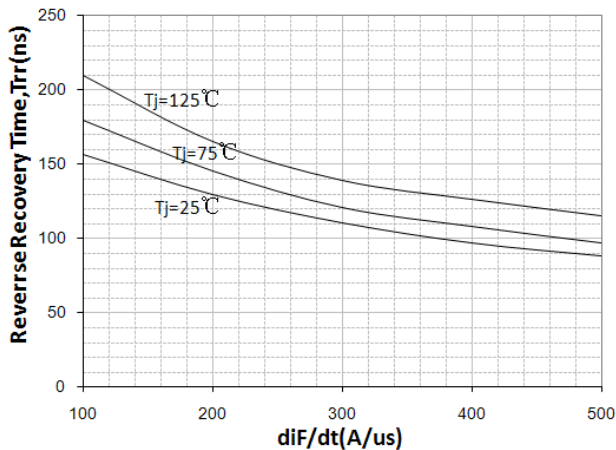
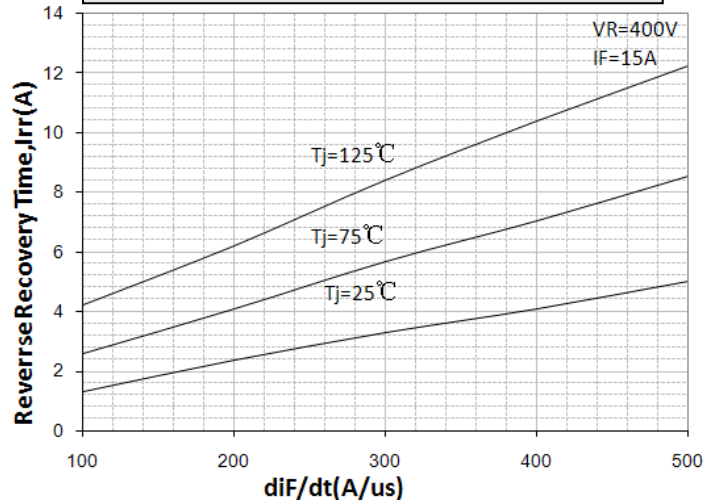


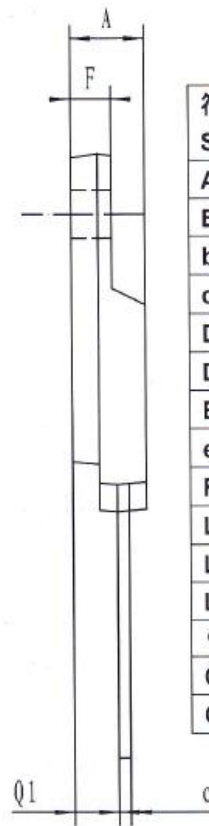
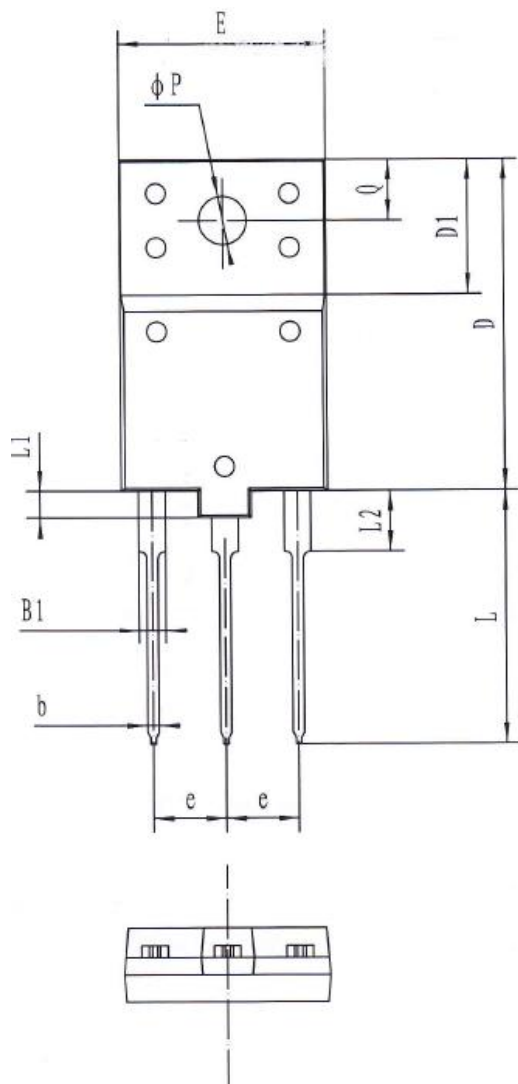
Fig.6 Peak reverse recovery current versus diF/dt





TO-3P(H)IS

单位 Unit : mm



符 号 Symbol	Min	Max
A	5.2	5.8
B1	1.8	2.2
b	0.75	1.05
c	0.8	1.1
D	24.0	25.0
D1	9.8	10.2
E	15.0	16.0
e	5.45 (typ)	
F	2.7	3.3
L	18.5	19.5
L1	1.8	2.2
L2	4.3	4.7
ϕP	3.4	3.8
Q	4.3	4.7
Q1	3.1	3.5





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4. 本说明书如有版本变更不另外告知

NOTES

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