



30F60UA3

主要参数 MAIN CHARACTERISTICS

$I_{F(AV)}$	15×2 A
V_{RRM}	600 V
$T_{J(max)}$	175℃
$V_F(typ)$	1.95V
$t_{rr} (typ)$	28ns

用途

- UPS
- 开关电源
- PFC
- 逆变焊机

APPLICATIONS

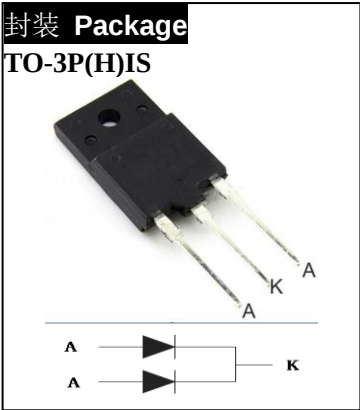
- UPS
- Switch power supply
- PFC
- Inversion Welder

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		
30F60UA3-GA-B	30F60UA3-GA-BR	30F60UA3	TO-3P(H)IS

**绝对最大额定值 ABSOLUTE RATINGS (Tc=25℃)**

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℃ 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=8.3ms		I _{FSM}	160	A
雪崩能量 Avalanche Energy(per diode) L=40mH		E _{AVL}	20	mJ
最高工作结温 Maximum operating junction temperature		T _j	175	℃
储存温度 Storage temperature range		T _{STG}	-65~+175	℃

电特性 ELECTRICAL CHARACTERISTICS (Tc=25℃ 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 =150℃			40	400	μA
V _F	T _J =25℃	I _F =15A		1.95	2.2	V
	T _J =150℃			1.4	1.7	V
C _J	V _R = 4.0V, f = 1.0 MHz			100		pF
T _{rr}	I _F =0.5A,I _R =1.0A,I _{RR} =0.25A			24	30	ns
T _{rr}	I _F =1A, V _R =30V, di _F /dt=-200A/μs			28	45	ns
T _{rr}	I _F =15A, V _R =400V, di _F /dt=100A/μs			120		ns
I _{RM}	T _J =125℃			3.1	5.0	A

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)}	2.7 3.5	℃/W





特征曲线 ELECTRICAL CHARACTERISTICS (curves)

Fig.1 TYPICAL FORWARD CHARACTERISTICS

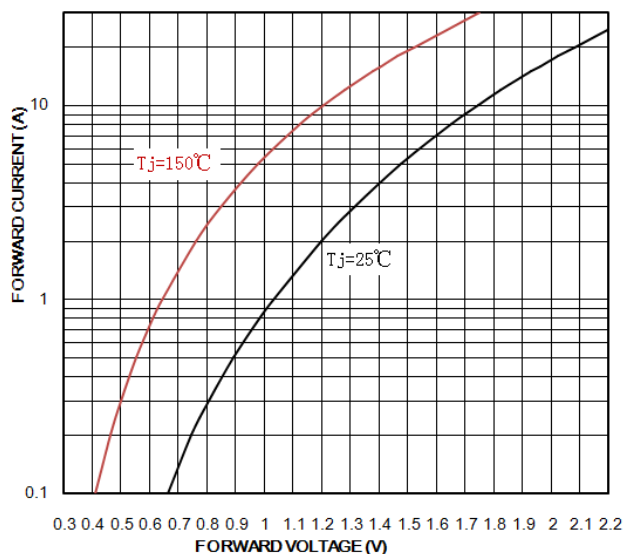


Fig.2 TYPICAL REVERSE CHARACTERISTICS

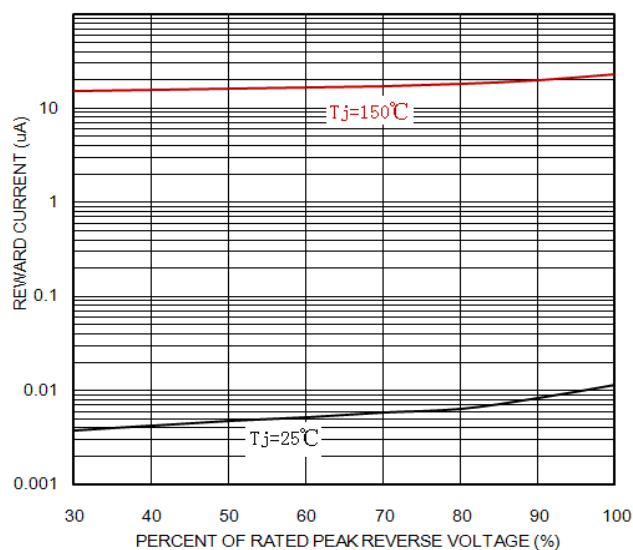


Fig.3 FORWARD CURRENT DERATING CURVE

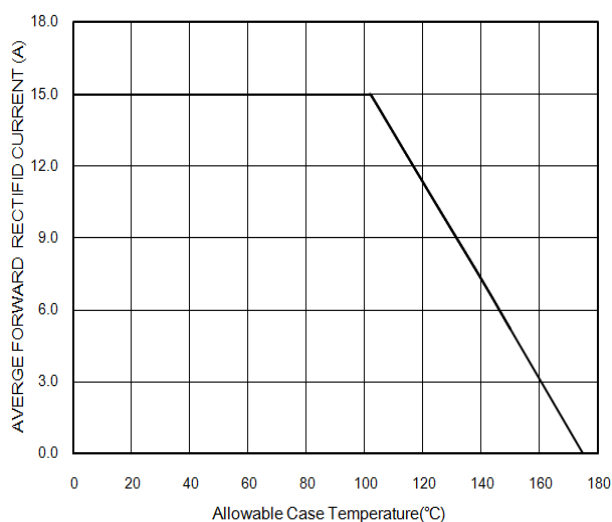
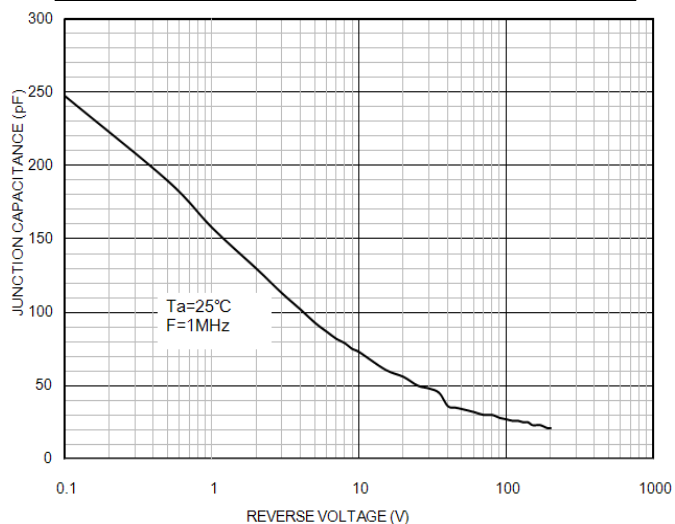
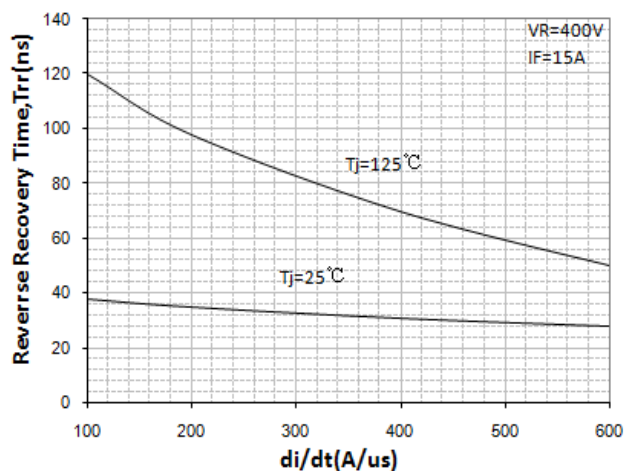
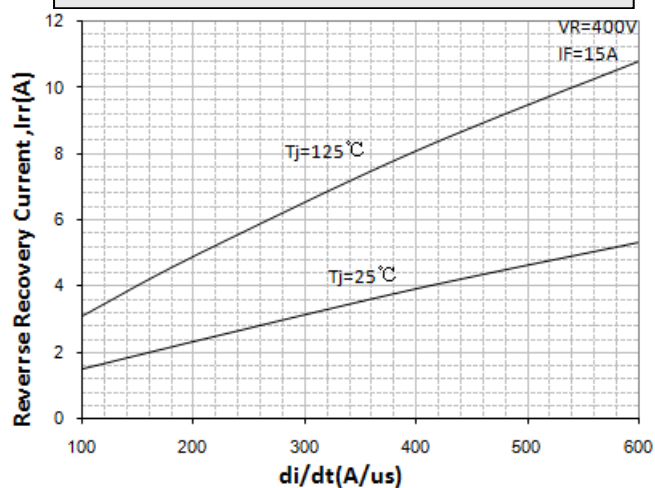


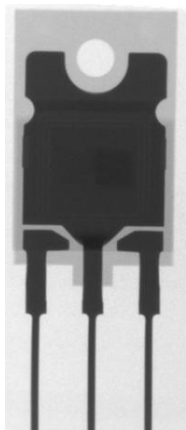
Fig.4 TYPICAL JUNCTION CAPACITANCE

Fig.5 Reverse recovery time versus dI_F/dt Fig.6 Peak reverse recovery current versus dI_F/dt 



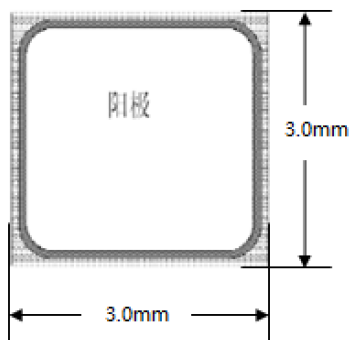
产品信息

1. X 光图片



2. 芯片尺寸及规格

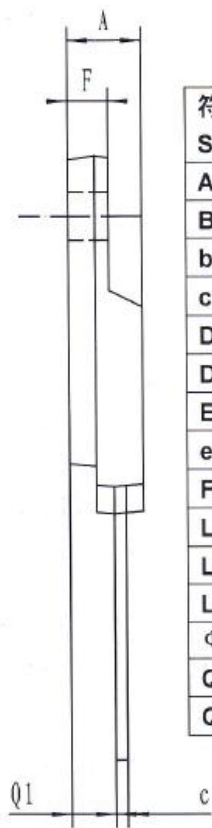
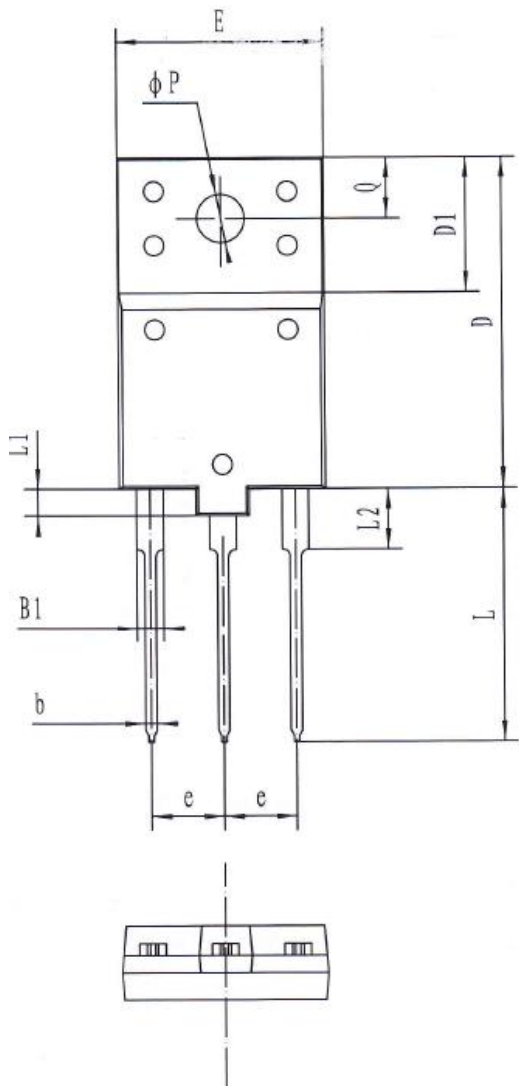
芯片名称	FRD
规格	600V/15A
芯片数量	2
晶粒尺寸(mm*mm)	3.0*3.0
键合线	15mil 铝线每侧各2根
晶圆厂家	吉林华微
晶圆型号	D300E6U
晶圆尺寸	5寸
封装厂家	广州华微





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