



FP120F60ADNS1

主要参数 MAIN CHARACTERISTICS

$I_F(AV)$	60*2 A
V_{RRM}	600 V
$V_F(typ)$	1.8 V
$t_{rr} (typ)$	48ns

用途

- UPS
- PFC
- 逆变焊机
- 光伏逆变

APPLICATIONS

- UPS
- PFC
- Inversion Welder
- Solar inverter

产品特性

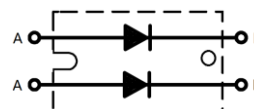
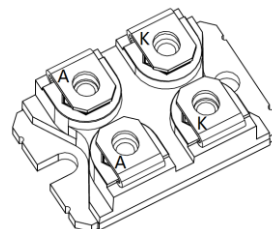
- 平面钝化芯片
- 低功耗，高效率
- 短恢复时间
- 软恢复特性

FEATURES

- Planar passivated chips
- Low power loss, high efficiency
- Very short recovery time
- Soft Recovery Characteristics

封装 Package

SOT-227



订货信息 ORDER MESSAGE

订货型号 Order codes	印记 Marking	封装 Package	包装 Packaging	器件重量 Device Weight
FP120F60ADNS1-NS1-BR	FP120F60ADNS1	SOT-227	条管	165g



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 $T_c=100^{\circ}\text{C}$	$I_{F(AV)}$	120	A
per module		60	
per diode			
峰值单脉冲浪涌电流 Peak one Cycle Surge Forward Current(Non-Repetitive) $t=8.3\text{ms}$	I_{FSM}	480	A
结温 Junction Temperature	T_j	$-50\sim+175$	$^{\circ}\text{C}$
储存温度 Storage temperature range	T_{STG}	$-50\sim+175$	$^{\circ}\text{C}$

电特性 ELECTRICAL CHARACTERISTICS ($T_c=25^{\circ}\text{C}$ 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	$I_R=50\mu\text{A}$	600	-	-	V
I_R	$T_j=25^{\circ}\text{C}$	-	-	10	μA
	$T_j=125^{\circ}\text{C}$	-	-	800	μA
V_F	$T_j=25^{\circ}\text{C}$	-	1.8	2.2	V
	$T_j=125^{\circ}\text{C}$	-	1.5	2.0	V
trr	$I_F=0.5\text{A}$, $I_R=1\text{A}$, $I_{RR}=0.25\text{A}$	-	48	55	ns
trr	$I_F=1\text{A}$, $V_R=30\text{V}$, $di_F/dt=-100\text{A}/\mu\text{s}$	-	-	45	ns
trr	$I_F=60\text{A}$, $V_R=200\text{V}$, $di_F/dt=-200\text{A}/\mu\text{s}$ $T_c=25^{\circ}\text{C}$	-	27	-	ns
Q_{rr}		-	33	-	nc
I_{RRM}		-	1.5	-	A
trr	$I_F=60\text{A}$, $V_R=200\text{V}$, $di_F/dt=-200\text{A}/\mu\text{s}$ $T_c=125^{\circ}\text{C}$	-	91	-	ns
Q_{rr}		-	173	-	nc
I_{RRM}		-	3.8	-	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 from junction to case	$R_{th(j-c)}$	0.6	$^{\circ}\text{C}/\text{W}$
per diode			
per module		0.35	





特征曲线 ELECTRICAL CHARACTERISTICS (curves)

Fig.1 TYPICAL FORWARD CHARACTERISTICS

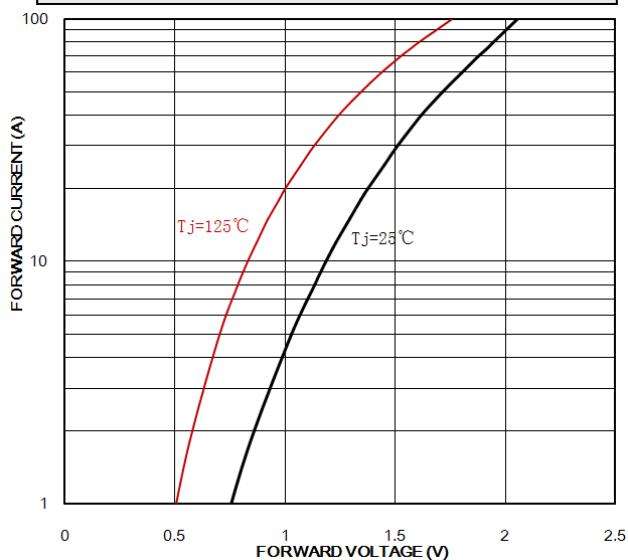


Fig.2 TYPICAL REVERSE CHARACTERISTICS

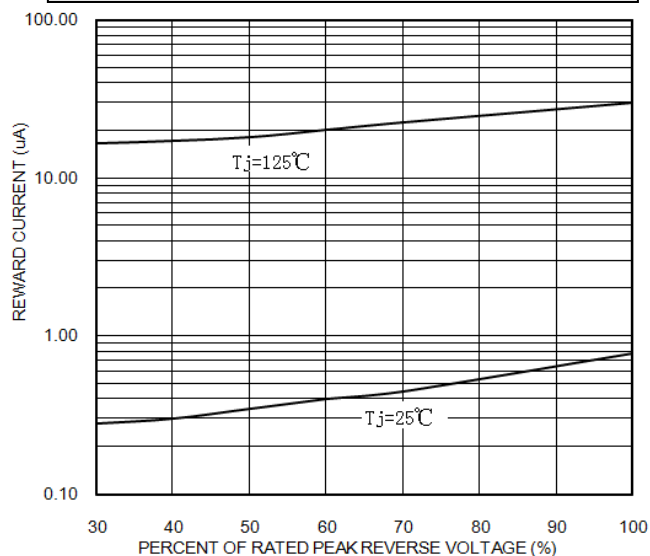
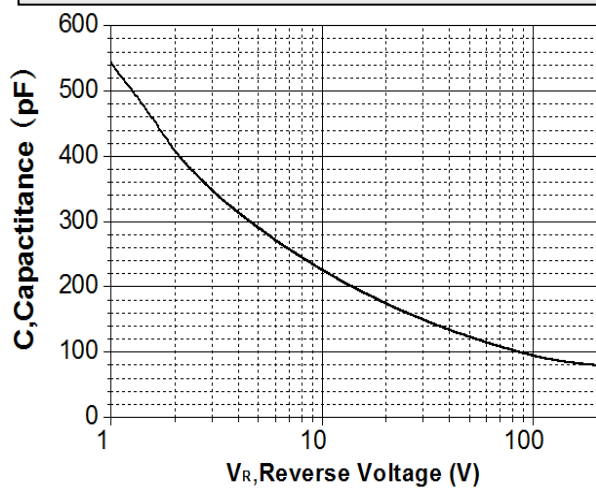
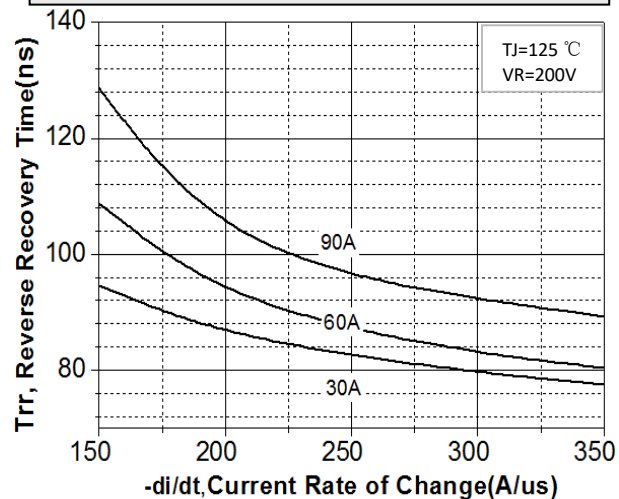
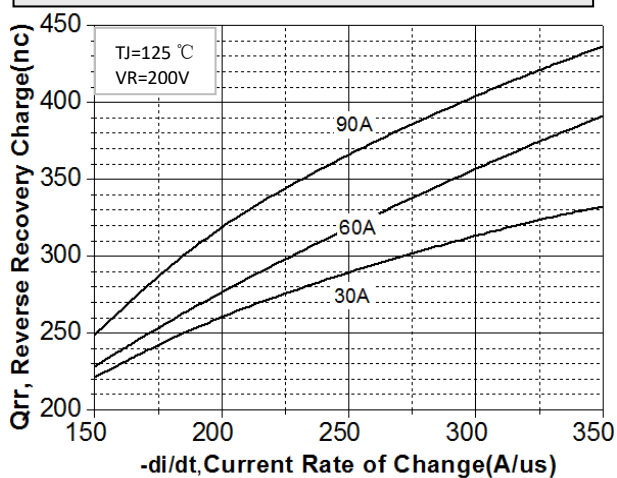
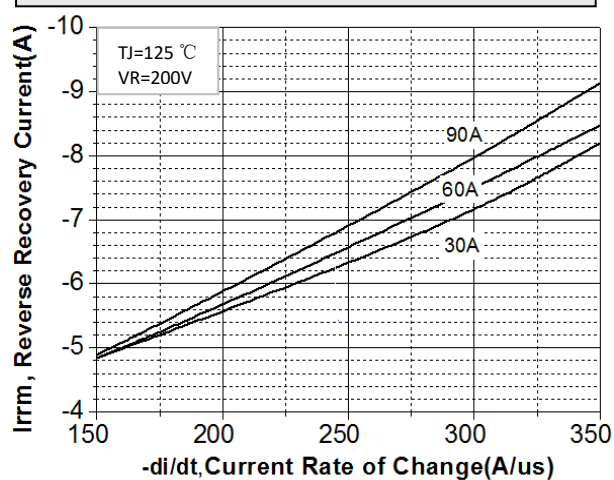


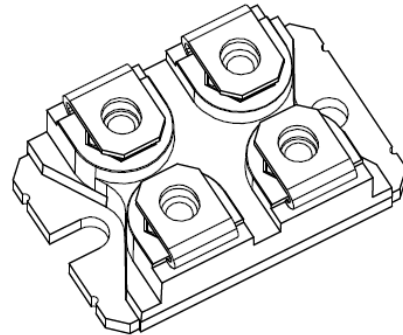
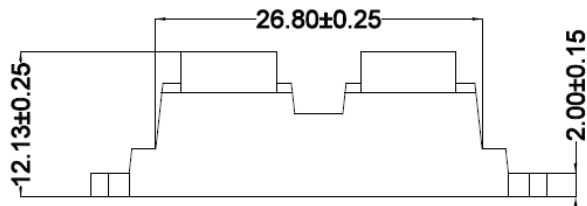
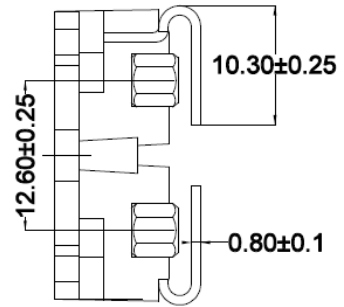
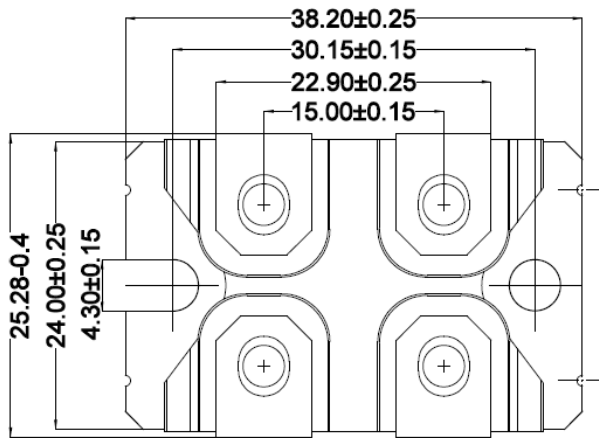
Fig.3 TYPICAL JUNCTION CAPACITANCE

Fig.4 Reverse recovery time versus di/dt Fig.5 Reverse recovery charges versus di/dt Fig.6 Peak reverse recovery current versus di/dt 



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单位 Unit : mm





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