



FP300F40ADFF1

主要参数 MAIN CHARACTERISTICS

$I_F(AV)$	300A
V_{RRM}	400 V
$V_F(\text{typ})$	1.17V
$T_{rr}(\text{typ})$	45ns

用途

- 逆变焊机
- 开关电源
- UPS
- 超声清洗机和焊机
- PFC

APPLICATIONS

- Inversion Welder
- Switch power supply
- UPS
- Ultrasonic Cleaner and Welder
- PFC

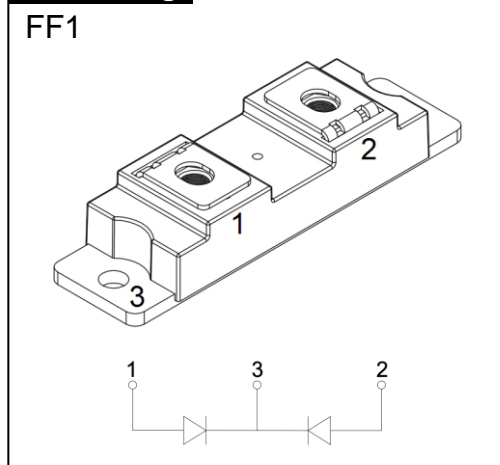
产品特性

- 超快恢复时间
- 软恢复特性
- 低正向压降
- 低漏电流

FEATURES

- Ultrafast Recovery Time
- Soft Recovery Characteristics
- Low Forward Voltage
- Low Leakage Current

封装 Package



订货信息 ORDER MESSAGE

订货型号 Order codes	印记 Marking	封装 Package	包装 Packaging
FP300F40ADFF1	FP300F40ADFF1	FF1	盒装

**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
Peak Repetitive Reverse Voltage	V_{RRM}	400	V
Average Forward Rectified Current $T_c=90^\circ\text{C}$	Per Diode	150	A
	Per Moudle	300	
RMS Forward Current	Per Diode	$I_{F(RMS)}$	210 A
Non-Repetitive Surge Forward Current $t=8.3\text{ms}$	I_{FSM}	2100	A
I^2T Rating for Fusing ($t=8.3\text{ms}$)	I^2T	18300	A^2S
Power Dissipation	P_D	1200	W
Junction Temperature	T_j	-40~+150	$^\circ\text{C}$
Storage temperature range	T_{STG}	-40~+125	$^\circ\text{C}$
Torque Module to Sink、Module Electrodes Recommended (M6)	Torque	3.0~4.7	Nm

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	$I_R=50\mu\text{A}$		470	-	-	V
I_R	$T_j=25^\circ\text{C}$	$V_R=V_{RRM}$	-	-	0.5	mA
	$T_j=125^\circ\text{C}$		-	-	2	mA
V_F	$T_j=25^\circ\text{C}$	$I_F=150\text{A}$	-	1.17	1.45	V
	$T_j=125^\circ\text{C}$		-	-	1.3	V
T_{rr}	$I_F=1\text{A}, V_R=30\text{V}, di_F/dt=-200\text{A}/\mu\text{s}$		-	45	60	ns
T_{rr}	$I_F=150\text{A}, V_R=200\text{V}, di_F/dt=200\text{A}/\mu\text{s}$		-	80	-	ns
I_{RM}	$T_j=25^\circ\text{C}$		-	8.5	-	A
T_{rr}	$I_F=150\text{A}, V_R=200\text{V}, di_F/dt=200\text{A}/\mu\text{s}$		-	148	-	ns
I_{RM}	$T_j=125^\circ\text{C}$		-	15.5	-	A

热特性 THERMAL CHARACTERISTICS (maximum)

项 目 Parameter	符 号 Symbol	最大值 Value(max)	单 位 Unit
Thermal Resistance Junction to Case	$R_{th(j-c)}$	0.09	$^\circ\text{C}/\text{W}$





特征曲线 ELECTRICAL CHARACTERISTICS (curves)

Fig.1 TYPICAL FORWARD CHARACTERISTICS

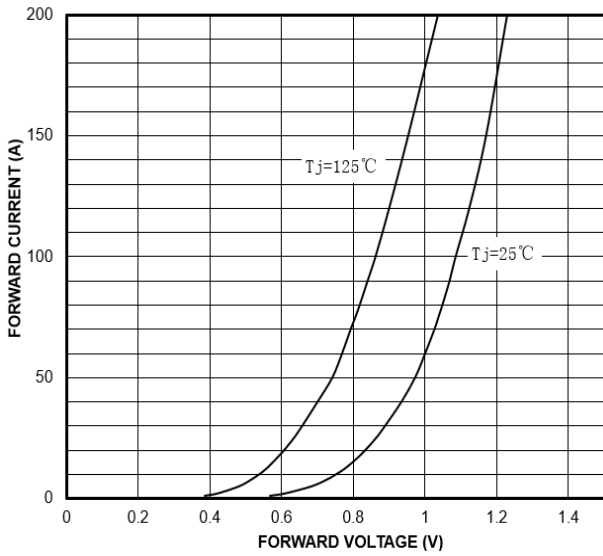


Fig.2 TYPICAL REVERSE CHARACTERISTICS

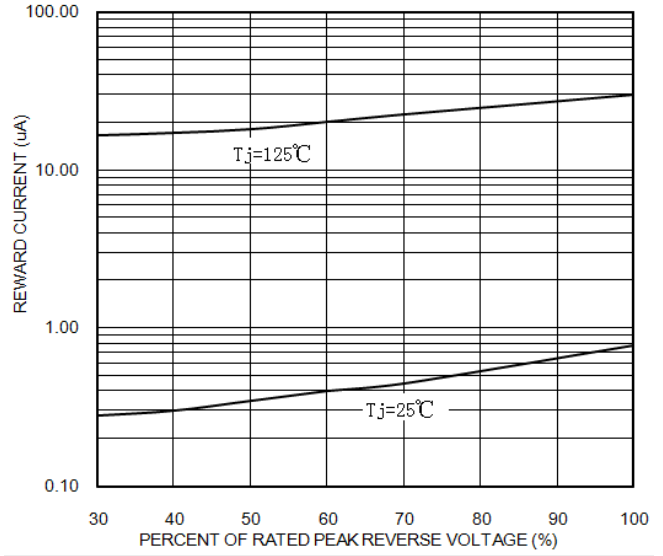


Fig.3 Reverse recovery time versus di/dt

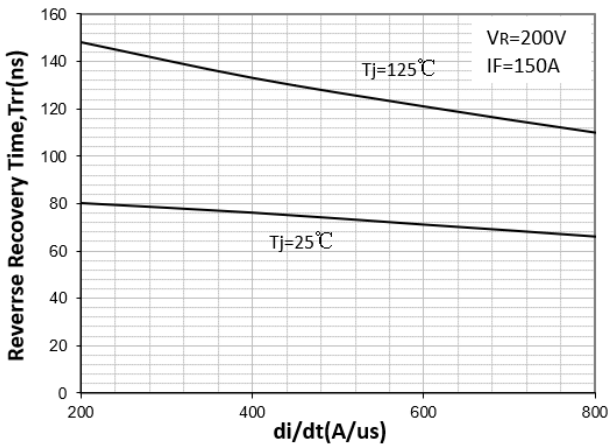
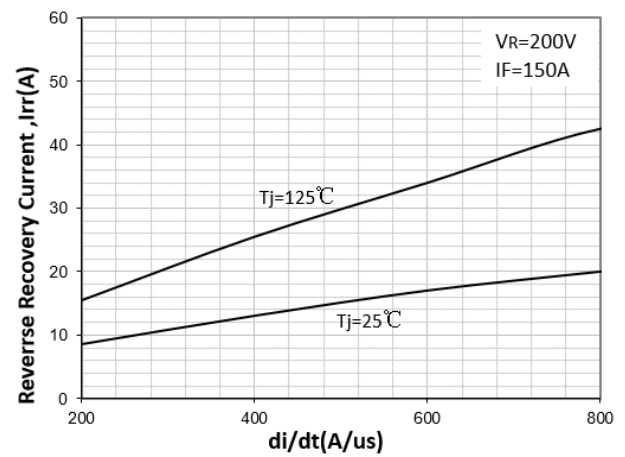


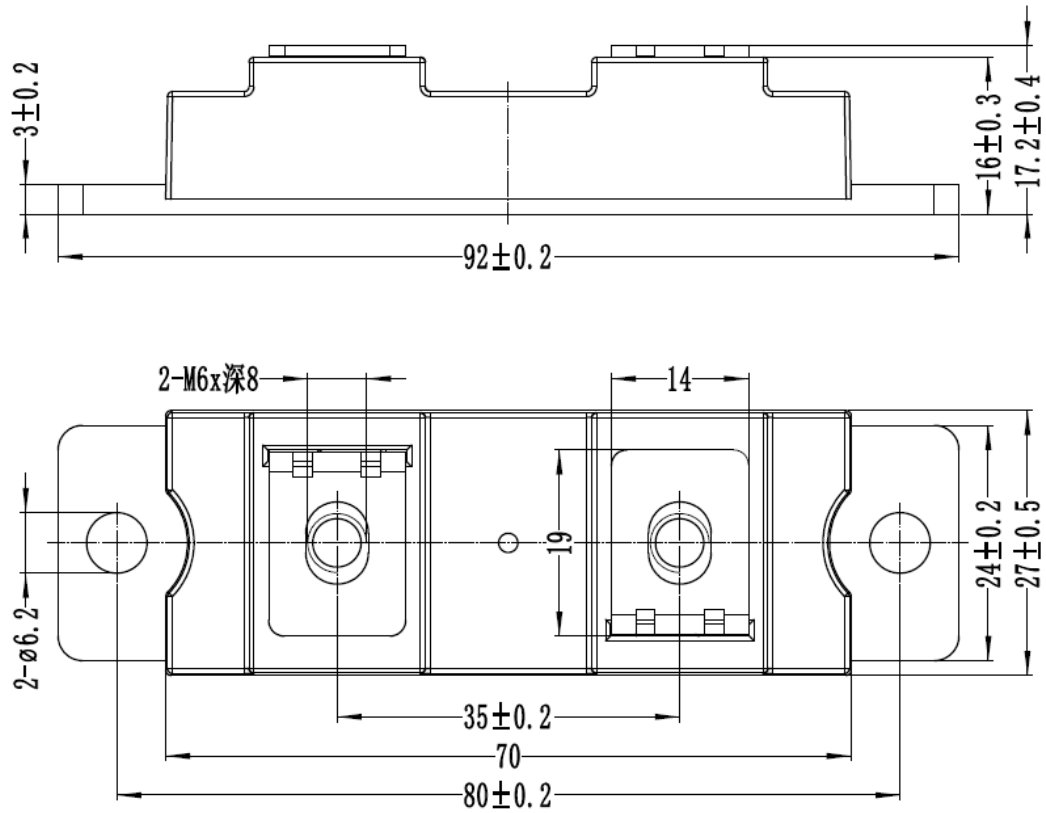
Fig.4 Peak reverse recovery current versus di/dt





外形尺寸 PACKAGE MECHANICAL DATA

单位 Unit: mm





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