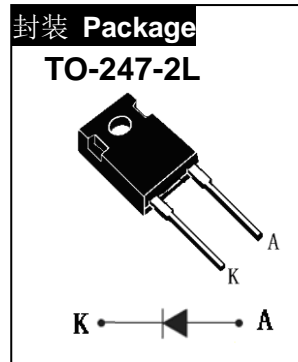




FP80F40AA

主要参数 MAIN CHARACTERISTICS

$I_F(AV)$	80A
V_{RRM}	400 V
$V_F(\text{typ})$	1.3V
$T_{rr}(\text{typ})$	51ns



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		
FP80F40AA -GL-B	FP80F40AA -GL-BR	FP80F40AA	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
反向重复峰值电压 Peak Repetitive Reverse Voltage	V_{RRM}	400	V
平均正向整流电流 $T_c=110^\circ\text{C}$ Average Forward Rectified Current	$I_{F(AV)}$	80	A
非重复浪涌正向电流 Non-Repetitive Surge Forward Current $t=10\text{ms}$	I_{FSM}	800	A
结温 Junction Temperature	T_j	-55~+150	$^\circ\text{C}$
存储温度 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_R	$I_R=50\mu\text{A}$		400	-	-	V
I_R	$T_j=25^\circ\text{C}$	$V_R=V_{RRM}$	-	-	10	μA
	$T_j=125^\circ\text{C}$		-	-	800	μA
V_F	$T_j=25^\circ\text{C}$	$I_F=80\text{A}$	-	1.3	1.5	V
	$T_j=125^\circ\text{C}$		-	1.15		V
trr	$I_F=0.5\text{A}, I_R=1\text{A}, I_{RR}=0.25\text{A}$		-	60	70	ns
trr	$I_F=1\text{A}, V_R=30\text{V}, di_F/dt=-100\text{A}/\mu\text{s}$		-	40	50	ns
trr	$I_F=80\text{A}, V_R=200\text{V}, di_F/dt=-200\text{A}/\mu\text{s}$ $T_c=25^\circ\text{C}$		-	51	-	ns
Qrr			-	325	-	nc
I_{RRM}			-	7	-	A
trr	$I_F=80\text{A}, V_R=200\text{V}, di_F/dt=-200\text{A}/\mu\text{s}$ $T_c=125^\circ\text{C}$		-	110	-	ns
Qrr			-	650	-	nc
I_{RRM}			-	10.8	-	A

热特性 THERMAL CHARACTERISTICS (maximum)

项 目 Parameter	符 号 Symbol	封装 Package	最大值 Value(max)	单 位 Unit
结到管壳的热阻 Thermal Resistance Junction to Case	$R_{th(j-c)}$	TO-247-2L	0.45	$^\circ\text{C}/\text{W}$





特征曲线 ELECTRICAL CHARACTERISTICS (curves)

Fig.1 TYPICAL FORWARD CHARACTERISTICS

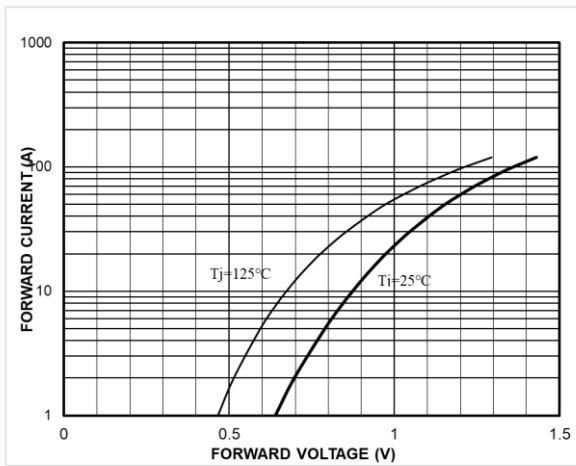


Fig.2 TYPICAL REVERSE CHARACTERISTICS

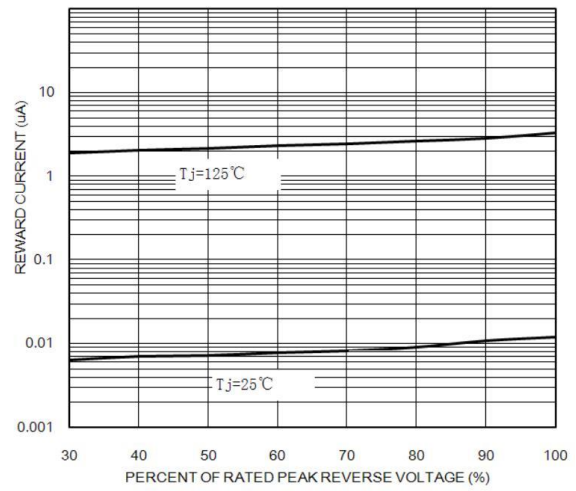


Fig.3 Reverse recovery time versus di/dt

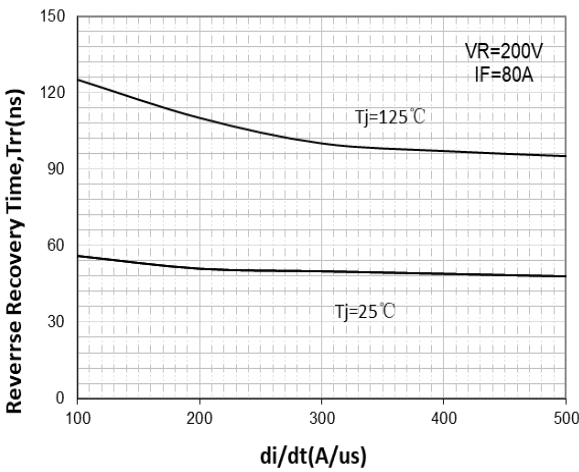


Fig.4 Peak reverse recovery current versus di/dt

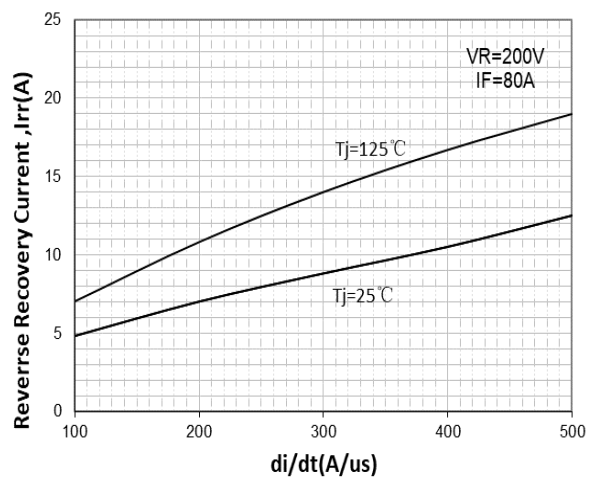
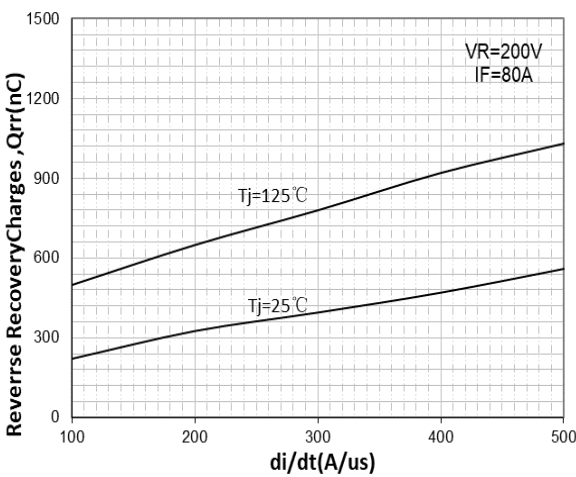


Fig.5 Reverse recovery charges versus di/dt

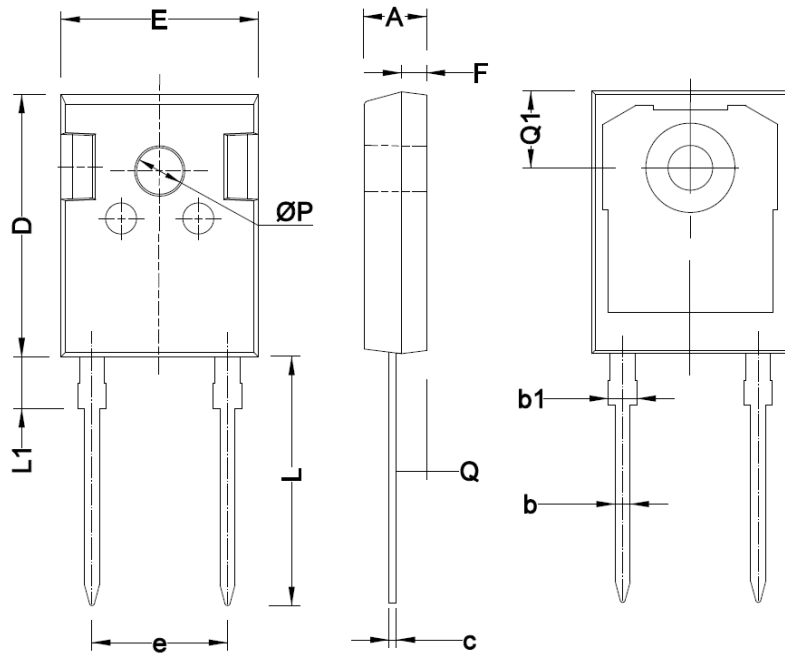




外形尺寸 PACKAGE MECHANICAL DATA

TO-247-2L

单位 Unit : mm



SYMBOL	MM	
	MIN	MAX
A	4.80	5.20
b	1.10	1.30
b1	1.95	2.25
c	0.50	0.70
D	20.80	21.20
E	15.60	16.00
F	1.85	2.15
e	10.73	11.03
L	19.62	20.22
L1	3.93	4.33
ØP	3.40	3.80
Q	2.26	2.56
Q1	6.00	6.40



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