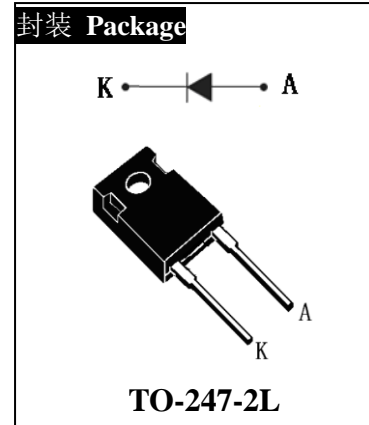




FP60U120BA

主要参数 MAIN CHARACTERISTICS

$I_{F(AV)}$	60A
V_{RRM}	1200V
$V_F(\text{typ})$	2.90V
$T_{rr}(\text{typ})$	32ns



用途

- 吸收回路
- 开关电源
- UPS
- 高频开关器件并联二极管

APPLICATIONS

- Snubber Diode
- Switch Power Supply
- UPS
- Antiparalle Diode For High Frequency Switching Devices

产品特性

- 超快恢复时间
- 低恢复损耗
- 低正向压降
- 低漏电流

FEATURES

- Ultrafast Recovery Time
- Low Recovery Loss
- Low Forward Voltage
- 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		
FP60U120BA-GL-B	FP60U120BA-GL-BR	FP60U120BA	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}	1200	V
平均正向整流电流 $T_C=100^\circ\text{C}$ Average Forward Rectified Current	$I_{F(AV)}$	60	A
非重复浪涌正向电流 Non-Repetitive Surge Forward Current $t=8.3\text{ms}$	I_{FSM}	590	A
雪崩能量 Avalanche Energy $L=0.5\text{mH}$	E_{AVL}	4	mJ
结温 Junction Temperature	T_j	-55~+175	$^\circ\text{C}$
存储温度 Storage temperature range	T_{STG}	-55~+175	$^\circ\text{C}$

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	$I_R=50\mu\text{A}$		1200	-	-	V
I_R	$T_j=25^\circ\text{C}$	$V_R=V_{RRM}$	-	-	100	μA
	$T_j=150^\circ\text{C}$		-	-	450	μA
V_F	$T_j=25^\circ\text{C}$	$I_F=60\text{A}$	-	2.90	3.50	V
	$T_j=150^\circ\text{C}$		-	-	2.80	V
T_{rr}	$I_F=1\text{A}, V_R=30\text{V}, di_F/dt=-200\text{A}/\mu\text{s}$		-	32	47	ns
T_{rr}	$I_F=60\text{A}, V_R=600\text{V}, di_F/dt=-200\text{A}/\mu\text{s}$ $T_C=25^\circ\text{C}$		-	330	-	ns
Q_{rr}			-	625	-	nc
I_{RRM}	$I_F=60\text{A}, V_R=600\text{V}, di_F/dt=-200\text{A}/\mu\text{s}$ $T_C=125^\circ\text{C}$		-	5.7	-	A
T_{rr}			-	445	-	ns
Q_{rr}	$I_F=60\text{A}, V_R=600\text{V}, di_F/dt=-1000\text{A}/\mu\text{s}$ $T_C=125^\circ\text{C}$		-	2090	-	nc
I_{RRM}			-	11.6	-	A
T_{rr}	$I_F=60\text{A}, V_R=600\text{V}, di_F/dt=-1000\text{A}/\mu\text{s}$ $T_C=125^\circ\text{C}$		-	255	-	ns
Q_{rr}			-	4250	-	nc
I_{RRM}			-	28.2	-	A

热特性 THERMAL CHARACTERISTICS (maximum)

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	$R_{th(j-c)}$	0.40	$^\circ\text{C}/\text{W}$





特征曲线 ELECTRICAL CHARACTERISTICS (curves)

Fig.1 Typical Forward Characteristics

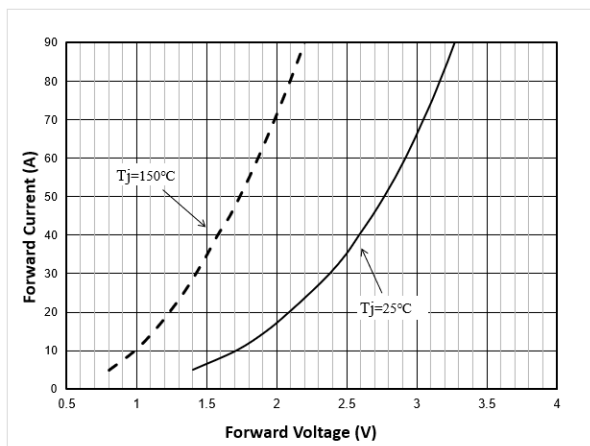


Fig.2 Typical Reverse Characteristics

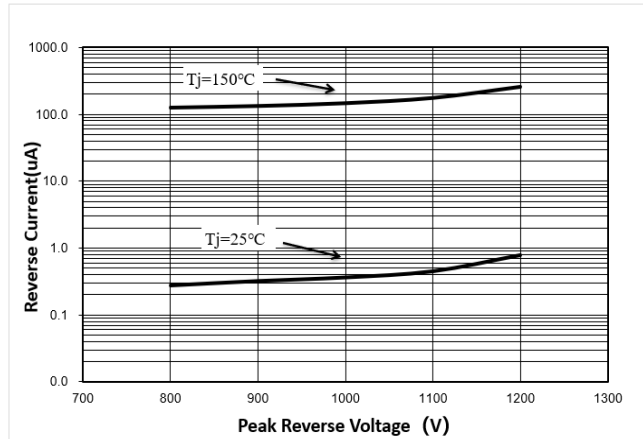


Fig.3 Reverse Recovery Time vs dI_F/dt

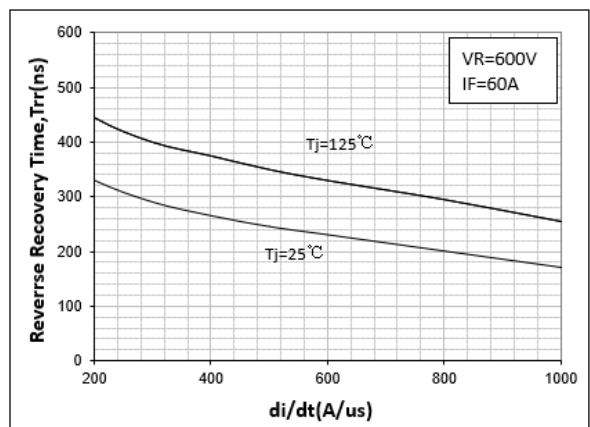


Fig.4 Reverse Recovery Current vs dI_F/dt

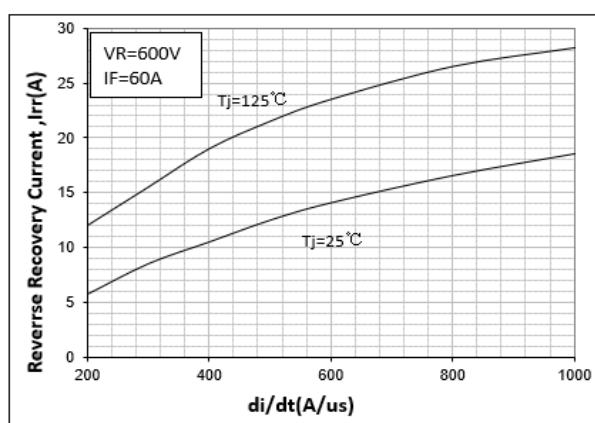


Fig.5 Reverse Recovery Charge vs dI_F/dt

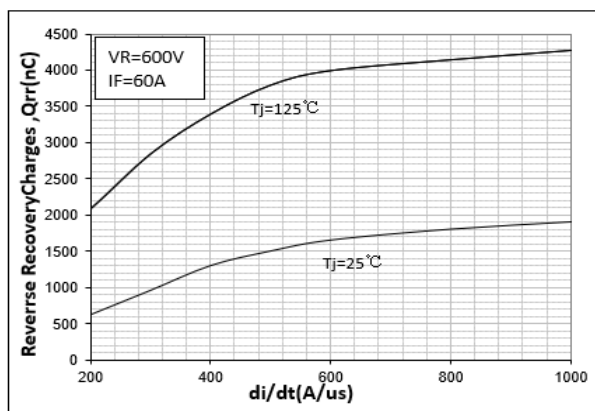


Fig.6 Forward Current vs Case Temperature

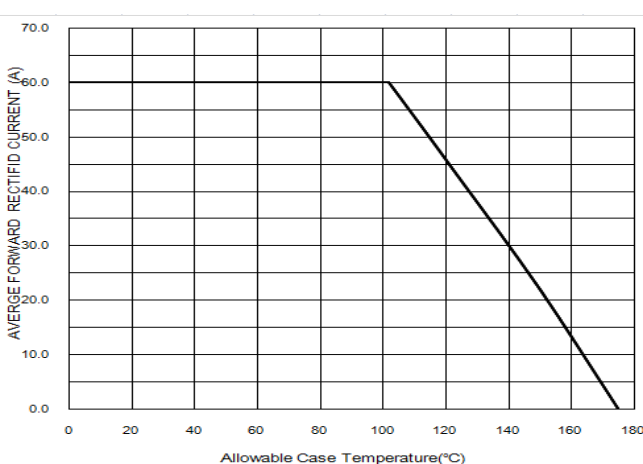
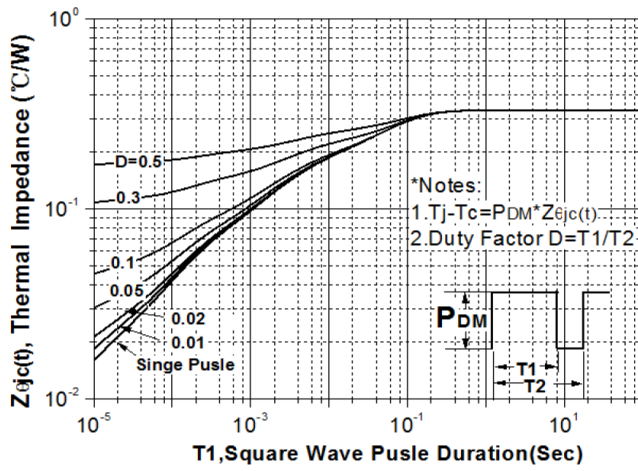


Fig.7 Transient Thermal Response Curve

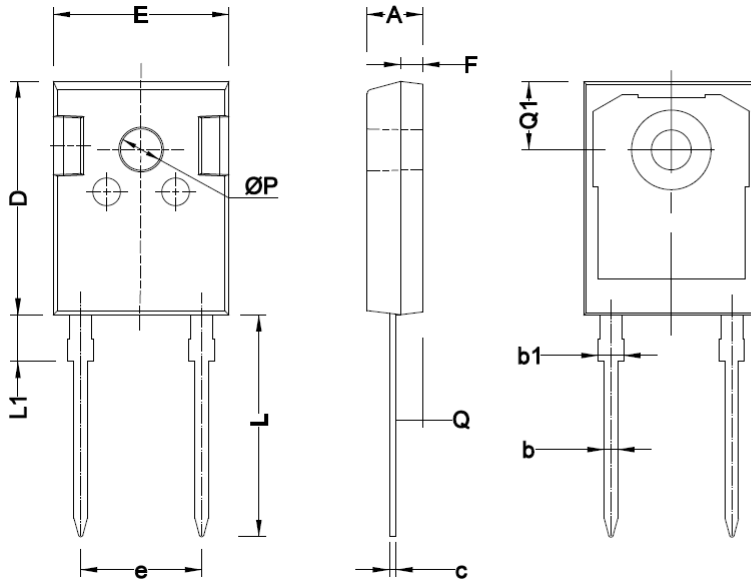




外形尺寸 PACKAGE MECHANICAL DATA

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
ΦP	3.40	3.80
Q	2.26	2.56
Q1	6.00	6.40



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3. 在电路设计时请不要超过器件的绝对最大额定值，否则会影响整机的可靠性。
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