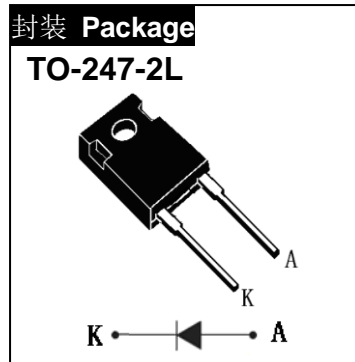




# FP60U120BA

## 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 (Tc=25°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 <sub>RRM</sub>	1200	V
平均正向整流电流 T <sub>C</sub> =100°C Average Forward Rectified Current	I <sub>F(AV)</sub>	60	A
非重复浪涌正向电流 Non-Repetitive Surge Forward Current t=8.3ms	I <sub>FSM</sub>	590	A
结温 Junction Temperature	T <sub>j</sub>	-55~+175	°C
存储温度 Storage temperature range	T <sub>STG</sub>	-55~+175	°C

电特性 ELECTRICAL CHARACTERISTICS (Tc=25°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 <sub>R</sub>	I <sub>R</sub> = 50μA		1200	-	-	V
I <sub>R</sub>	T <sub>j</sub> = 25°C	V <sub>R</sub> = V <sub>RRM</sub>	-	-	100	μA
	T <sub>j</sub> = 150°C		-	-	450	μA
V <sub>F</sub>	T <sub>j</sub> = 25°C	I <sub>F</sub> = 60A	-	2.90	3.50	V
	T <sub>j</sub> = 150°C		-	-	2.80	V
T <sub>rr</sub>	I <sub>F</sub> = 1A, V <sub>R</sub> = 30V, di <sub>F</sub> /dt = -200A/μs		-	32	47	ns
T <sub>rr</sub>	I <sub>F</sub> = 60A, V <sub>R</sub> = 600V, di <sub>F</sub> /dt = -200A/μs T <sub>c</sub> = 25°C		-	330	-	ns
Q <sub>rr</sub>			-	625	-	nc
I <sub>RRM</sub>			-	5.7	-	A
T <sub>rr</sub>			-	445	-	ns
Q <sub>rr</sub>	I <sub>F</sub> = 60A, V <sub>R</sub> = 600V, di <sub>F</sub> /dt = -200A/μs T <sub>c</sub> = 125°C		-	2090	-	nc
I <sub>RRM</sub>			-	11.6	-	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 <sub>th(j-c)</sub>	0.40	°C/W





特征曲线 ELECTRICAL CHARACTERISTICS (curves)

Fig.1 Typical Forward Characteristics

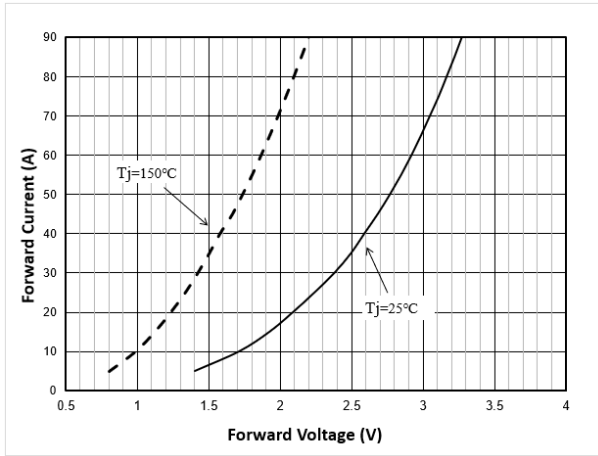


Fig.2 Typical Reverse Characteristics

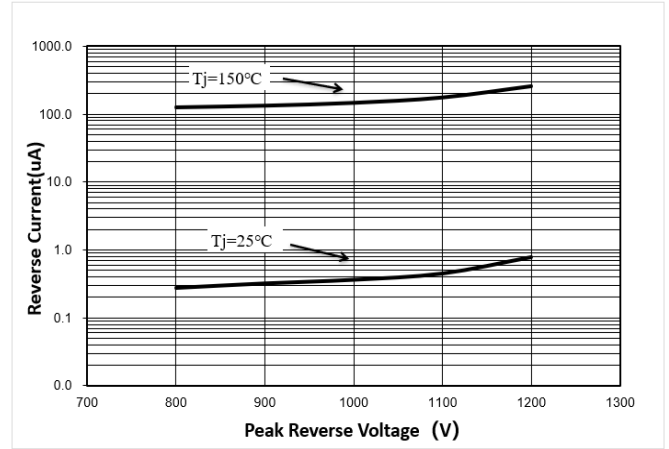


Fig.3 Reverse Recovery Time vs  $dI_F/dt$

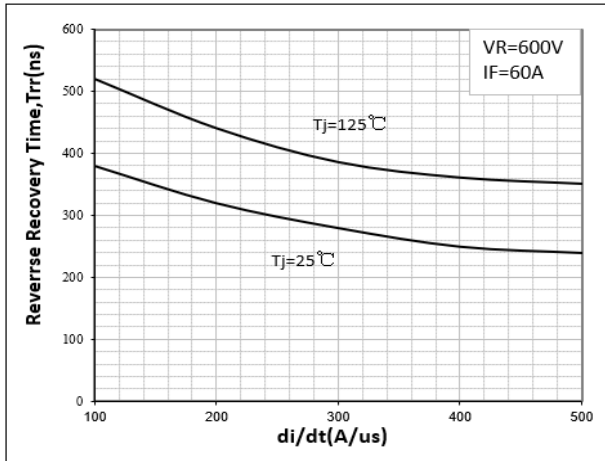


Fig.4 Reverse Recovery Current vs  $dI_F/dt$

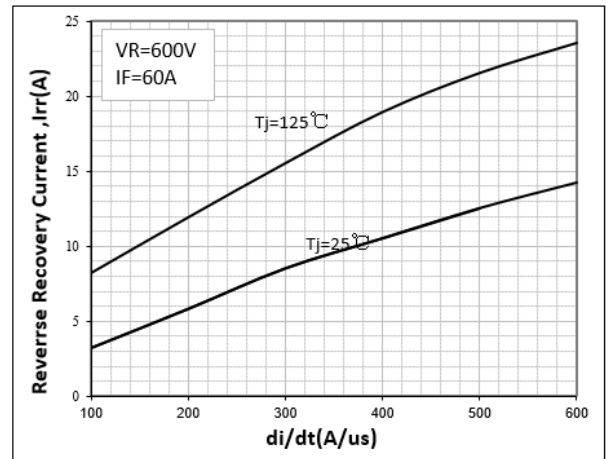


Fig.5 Reverse Recovery Charge vs  $dI_F/dt$

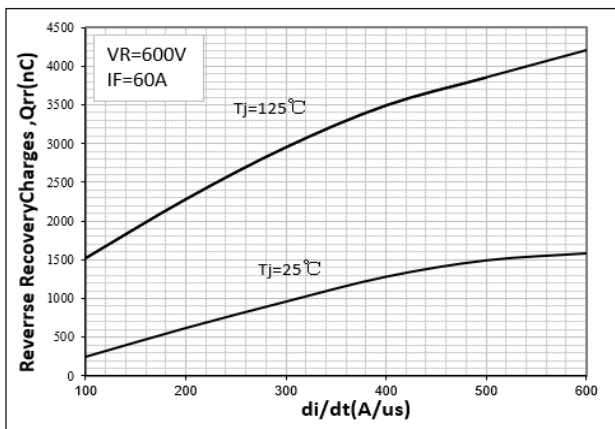


Fig.6 Forward Current vs Case Temperature

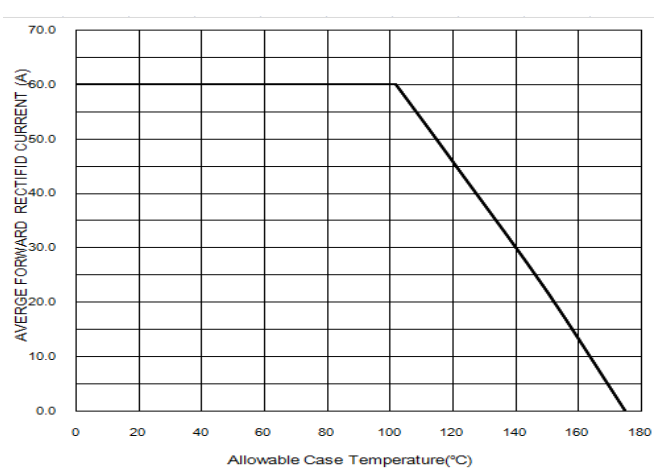
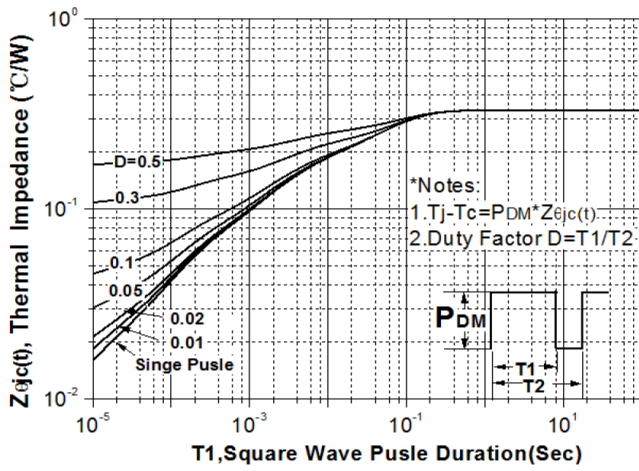


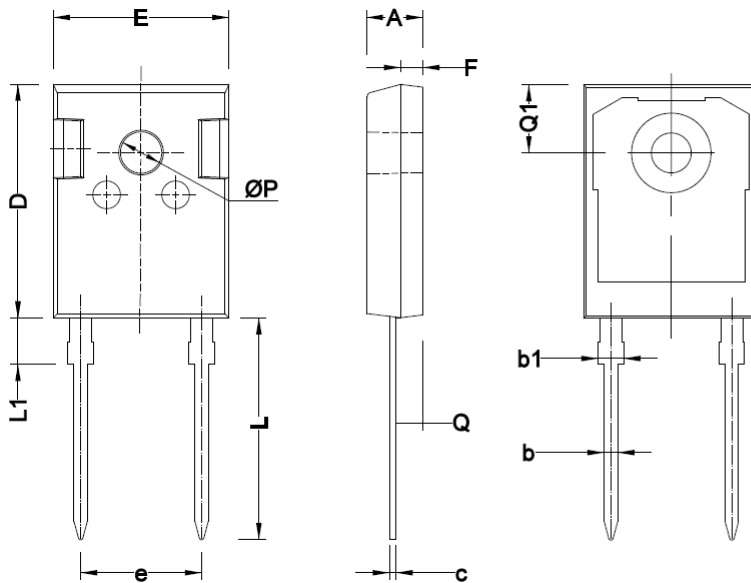
Fig.7 Transient Thermal Response Curve



## 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
ØP	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。
4. 本说明书如有版本变更不另外告知。

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