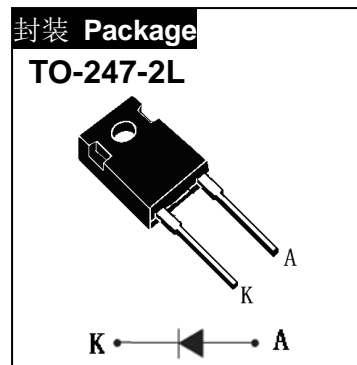




FP75U60CA

主要参数 MAIN CHARACTERISTICS

$I_F(AV)$	75A
V_{RRM}	600 V
$V_F(typ)$	2.3V
$T_{rr}(typ)$	45ns



用途

- 电动汽车充电站
- UPS
- 焊机
- 光伏逆变
- 高频开关器件并联二极管

APPLICATIONS

- EV Chargers
- UPS
- Welding machine
- 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		
FP75U60CA-GL-B	FP75U60CA-GL-BR	FP75U60CA	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}	600	V
平均正向整流电流 $T_c=110^\circ\text{C}$ Average Forward Rectified Current	$I_{F(AV)}$	75	A
非重复浪涌正向电流 Non-Repetitive Surge Forward Current $t=8.3\text{ms}$	I_{FSM}	670	A
雪崩能量 Avalanche Energy(per diode) (L=40mH)	E_{AVL}	20	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	$I_R=50\mu\text{A}$		600	-	-	V
I_R	$T_j=25^\circ\text{C}$	$V_R=V_{RRM}$	-	-	10	μA
	$T_j=125^\circ\text{C}$		-	-	500	μA
V_F	$T_j=25^\circ\text{C}$	$I_F=75\text{A}$	-	2.3	2.7	V
	$T_j=125^\circ\text{C}$		-	1.7	2.2	V
trr	$I_F=0.5\text{A}, I_R=1\text{A}, I_{RR}=0.25\text{A}$		-	50	60	ns
trr	$I_F=1\text{A}, V_R=30\text{V}, di_F/dt=-100\text{A}/\mu\text{s}$		-	27	38	ns
trr	$I_F=75\text{A}, V_R=300\text{V}, di_F/dt=-200\text{A}/\mu\text{s}$ $T_c=25^\circ\text{C}$		-	45	-	ns
Qrr			-	205	-	nc
I _{RRM}			-	3.9	-	A
trr	$I_F=75\text{A}, V_R=300\text{V}, di_F/dt=-200\text{A}/\mu\text{s}$ $T_c=125^\circ\text{C}$		-	120	-	ns
Qrr			-	590	-	nc
I _{RRM}			-	8.3	-	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	$R_{th(j-c)}$	0.5	$^\circ\text{C}/\text{W}$





特征曲线 ELECTRICAL CHARACTERISTICS (curves)

Fig.1 TYPICAL FORWARD CHARACTERISTICS

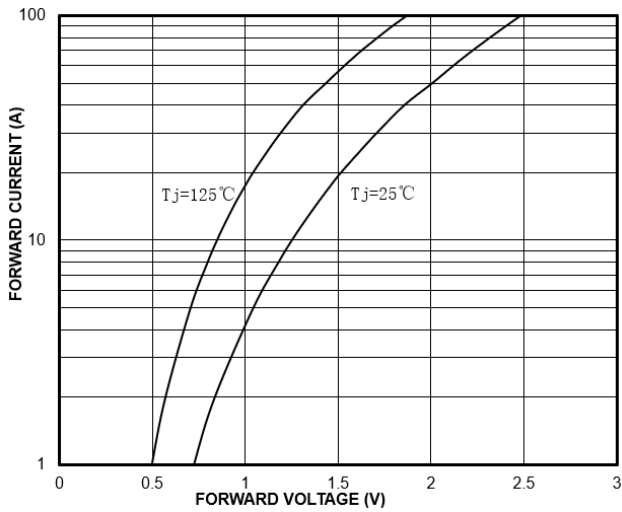


Fig.2 TYPICAL REVERSE CHARACTERISTICS

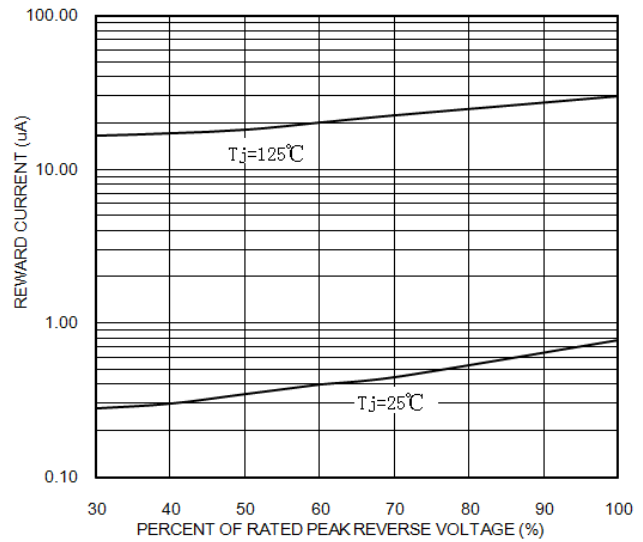


Fig.3 Reverse recovery time versus di/dt

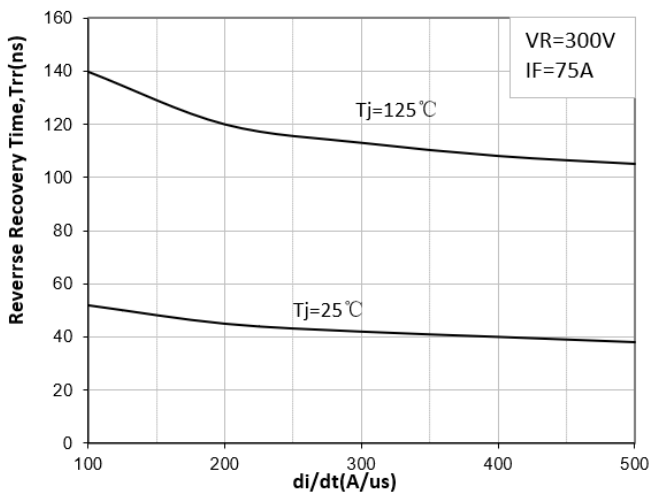


Fig.4 Peak reverse recovery current versus di/dt

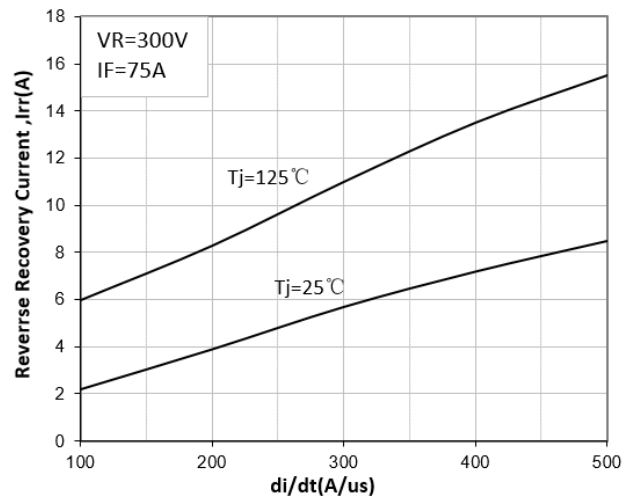


Fig.5 Reverse recovery charges versus di/dt

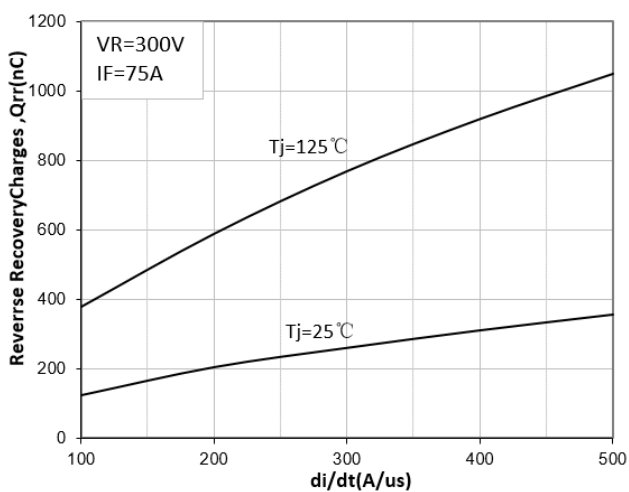
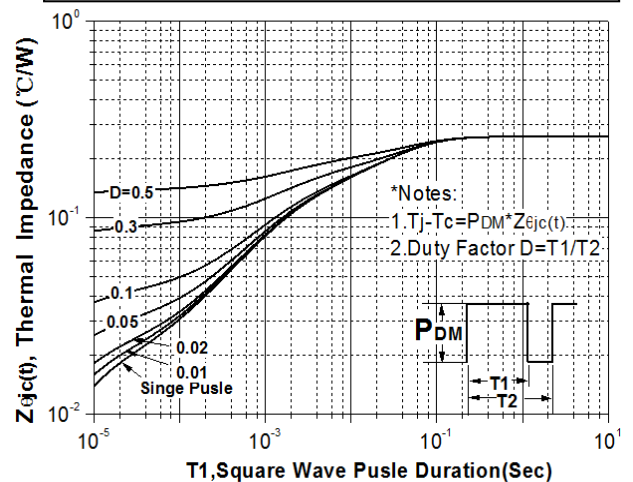


Fig.6 Transient Thermal Response Curve

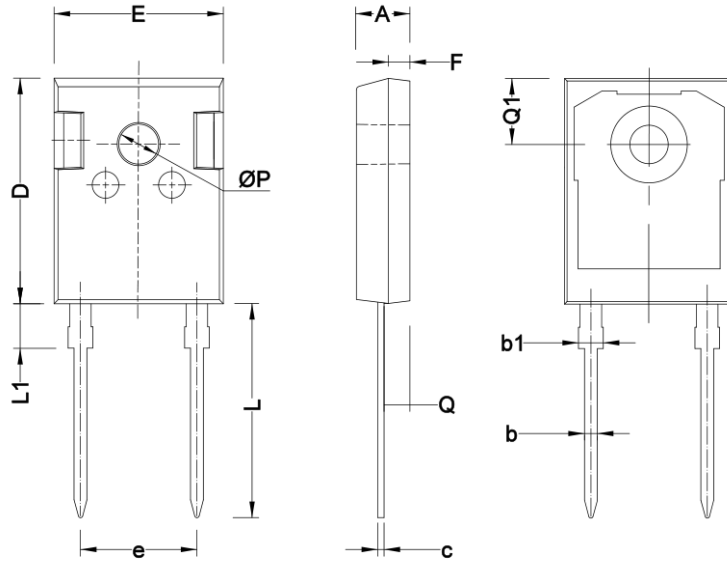




外形尺寸 PACKAGE MECHANICAL DATA

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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