

F60U60WT

主要参数 MAIN CHARACTERISTICS

$I_{F(AV)}$	60A
V_{RRM}	600 V
T_j	175 °C
V_F (TYP)	1.6V
$T_{RR}(TYP)$	40ns

用途

- 开关电源
- 吸收电路
- 高频开关器件并联二极管

APPLICATIONS

- Switch power supply
- Snubber diode
- Antiparalle Diode for high frequency switching devices

产品特性

- 低功耗，高效率
- 高可靠性
- 环保（RoHS）产品

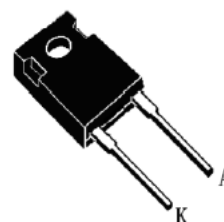
FEATURES

- Low power loss,high efficiency
- High reliabilty
- RoHS product

封装 Package

K •  • A

TO-2472L



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
最大反向重复峰值电压 Repetitive peak reverse voltage	V_{RRM}	600	V
正向平均整流电流 Average forward current	$I_{F(AV)}$	60	A
正向峰值浪涌电流 Surge non repetitive forward current (额定负载 8.3ms 半正弦波—按 JEDEC 方法) 8.3 ms single half-sine-wave (JEDEC Method)	I_{FSM}	480	A
雪崩能量 Avalanche Energy(L=40mH)	E_{AVL}	20	mJ
最高结温 Maximum junction temperature	T_j	175	$^{\circ}\text{C}$
储存温度 Storage temperature range	T_{STG}	-50~+175	$^{\circ}\text{C}$

电特性 ELECTRICAL CHARACTERISTICS

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_{RRM}	$I=50\mu\text{A}$	600	-	-	V
I_R	$T_j=25^{\circ}\text{C}$	-	-	10	μA
	$T_j=125^{\circ}\text{C}$	-	-	800	μA
V_F	$T_j=25^{\circ}\text{C}$	-	1.6	2.3	V
	$T_j=125^{\circ}\text{C}$	-	-	2.0	V
T_{rr}	$I_F=0.5\text{A}, I_R=1\text{A}, I_{RR}=0.25\text{A}$	-	45	55	nS
T_{rr}	$I_F=1\text{A}, V_R=30\text{V}, di_F/dt=100\text{A}/\mu\text{s}$	-	-	45	nS
T_{rr}	$I_F=60\text{A}, V_R=200\text{V}, di_F/dt=200\text{A}/\mu\text{s}$	-	27	-	ns
I_{RRM}	$s, T_C=25^{\circ}\text{C}$	-	1.5	-	A
Q_{rr}			33		nc
T_{rr}	$I_F=60\text{A}, V_R=200\text{V}, di_F/dt=200\text{A}/\mu\text{s}$	-	91	-	ns
I_{RRM}	$s, T_C=125^{\circ}\text{C}$	-	3.8	-	A
Q_{rr}			173		nc

热特性 Thermal Characteristics

项 目 Parameter	符 号 Symbol	最大 Max	单 位 Unit
结到管壳的热阻 Thermal Resistance, Junction to Case	$R_{th(j-c)}$	0.34	$^{\circ}\text{C}/\text{W}$

特征曲线 ELECTRICAL CHARACTERISTICS (curves)

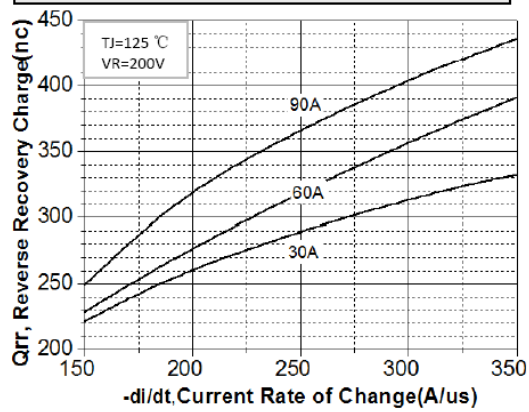
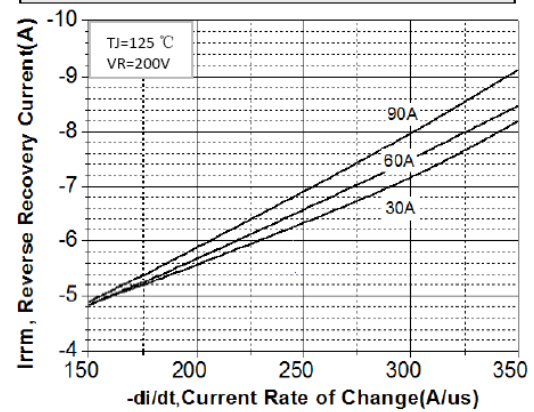
Fig.5 Reverse recovery charges versus di/dt Fig.6 Peak reverse recovery current versus di/dt 

Fig.3 TYPICAL JUNCTION CAPACITANCE

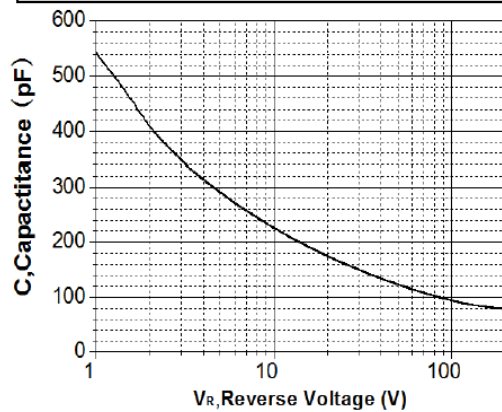
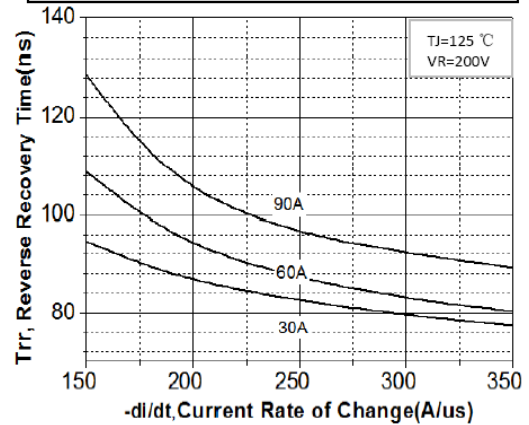
Fig.4 Reverse recovery time versus di/dt 

Fig.1 TYPICAL FORWARD CHARACTERISTICS

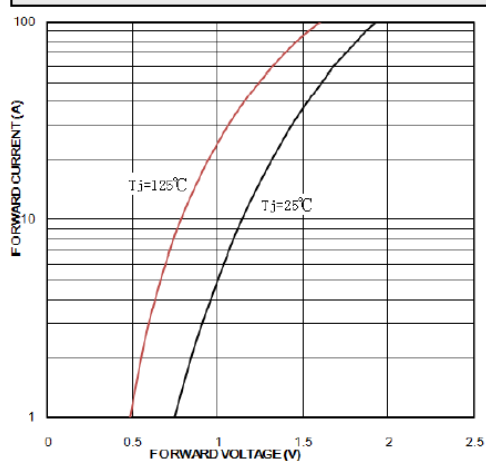
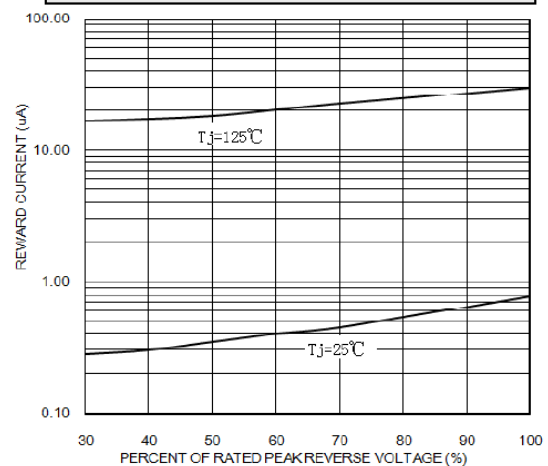


Fig.2 TYPICAL REVERSE CHARACTERISTICS



特征曲线 ELECTRICAL CHARACTERISTICS (curves)

Fig.7 FORWARD CURRENT DERATING CURVE

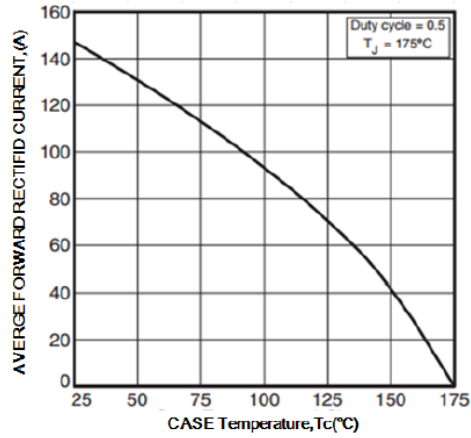
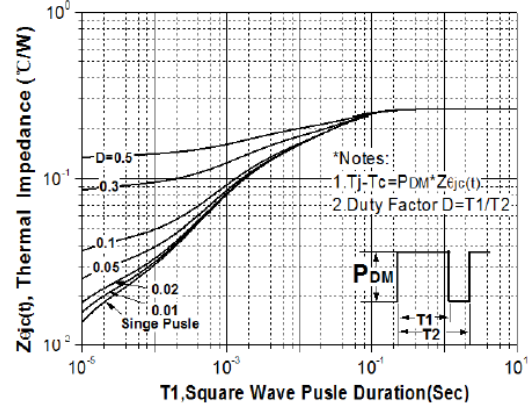


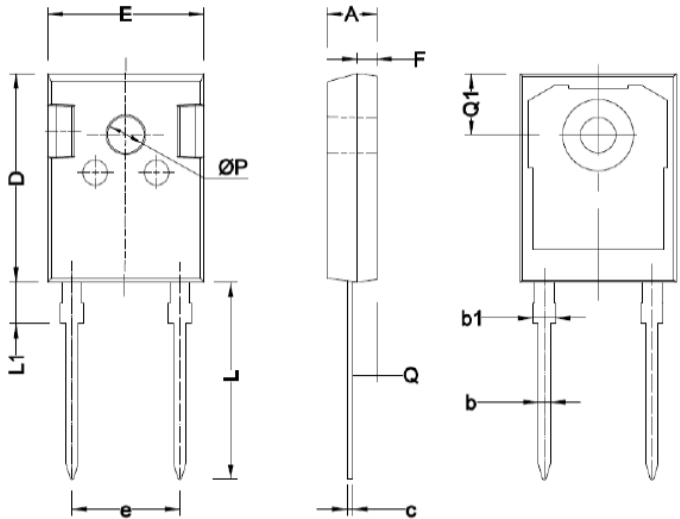
Fig.8 Transient Thermal Response Curve



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