



30F120WT

主要参数 MAIN CHARACTERISTICS

$I_F(AV)$	30A
V_{RRM}	1200V
$T_j(max)$	175°C
$V_F(typ)$	2.7V
$T_{rr}(typ)$	45ns

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

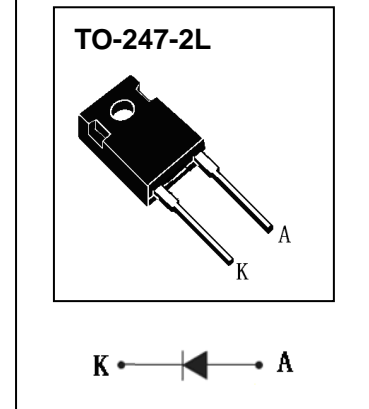
产品特性

- 低功耗，高效率
- 高可靠性
- 环保（RoHS）产品

FEATURES

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

封装 Package



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		
30F120WT-GL-B	30F120WT-GL-BR	30F120WT	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
最大反向重复峰值电压 Max Repetitive peak reverse voltage	V _{RRM}	1200	V
正向平均整流电流 T _C =125°C Average forward current	I _{F(AV)}	30	A
峰值单脉冲浪涌电流 Peak one Cycle Surge Forward Current (Non-Repetitive) t=8.3ms	I _{FSM}	210	A
雪崩耐量 Avalanche Energy (1A, 40mH)	E _{AVL}	20	mJ
结温 Junction Temperature	T _j	-55~+175	°C
储存温度 Storage temperature range	T _{STG}	-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 _R	I _R = 50μA		1200			V
I _R	T _j = 25°C	V _R = V _{RRM}			100	μA
	T _j = 125°C				500	μA
V _F	T _j = 25°C	I _F = 30A		2.7	3.3	V
	T _j = 125°C				2.9	V
t _{rr}	I _F = 1A, V _R = 30V, di _F /dt = -100A/μs				45	ns
t _{rr}	I _F = 30A, V _R = 200V, di _F /dt = -200A/μs T _j = 25°C			43		ns
Q _{rr}				79		nc
I _{RRM}				3.3		A
t _{rr}				207		ns
Q _{rr}	I _F = 30A, V _R = 200V, di _F /dt = -200A/μs T _j = 125°C			583		nc
I _{RRM}				6.2		A

热特性 THERMAL CHARACTERISTICS

项 目 Parameter	符 号 Symbol	最大值 Value(max)	单 位 Unit
结到管壳的热阻 Thermal resistance from junction to case	TO-247-2L R _{th(j-c)}	0.55	°C/W





特征曲线 ELECTRICAL CHARACTERISTICS (curves)

Fig.1 Typical forward characteristics

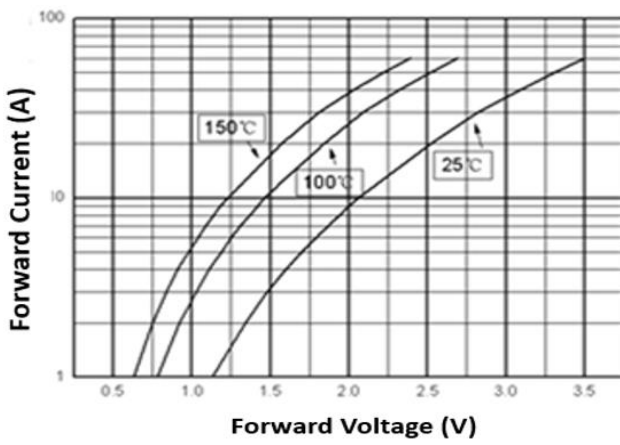


Fig.2 Typical reverse characteristics

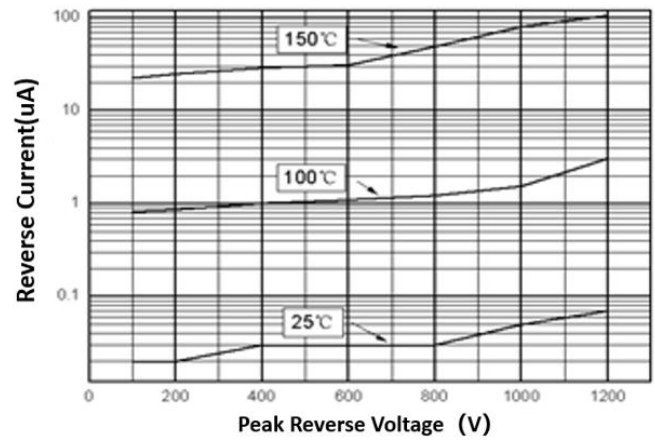


Fig.3 Typical junction capacitance

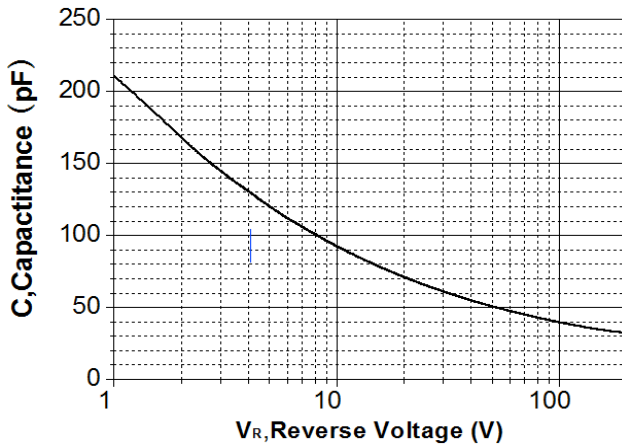


Fig.4 Reverse recovery time versus d_{IF}/dt

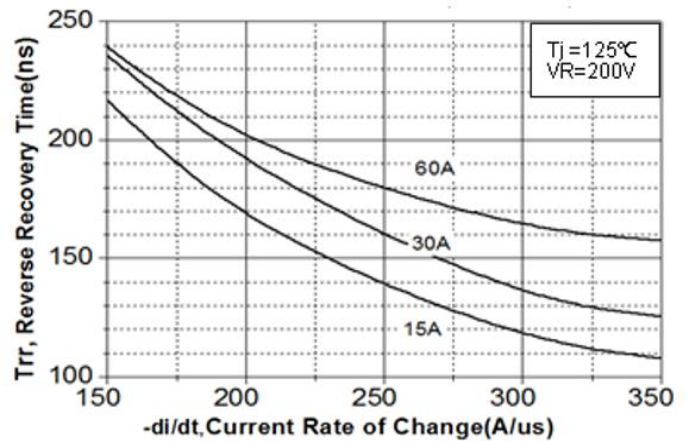


Fig.5 Reverse recovery charge vs d_{IF}/dt

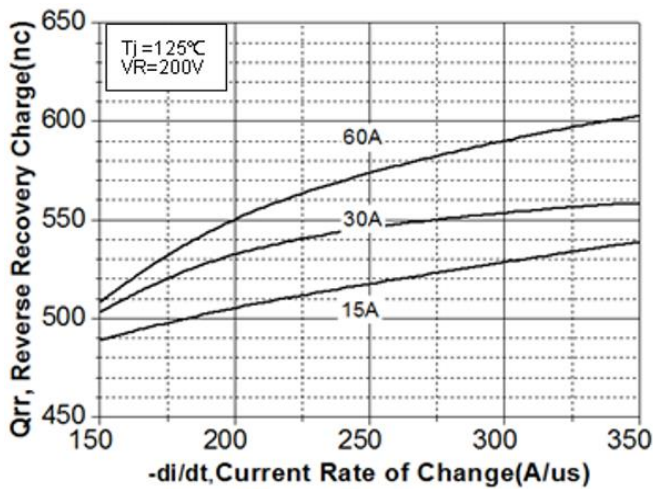


Fig.6 Peak reverse recovery current versus d_{IF}/dt

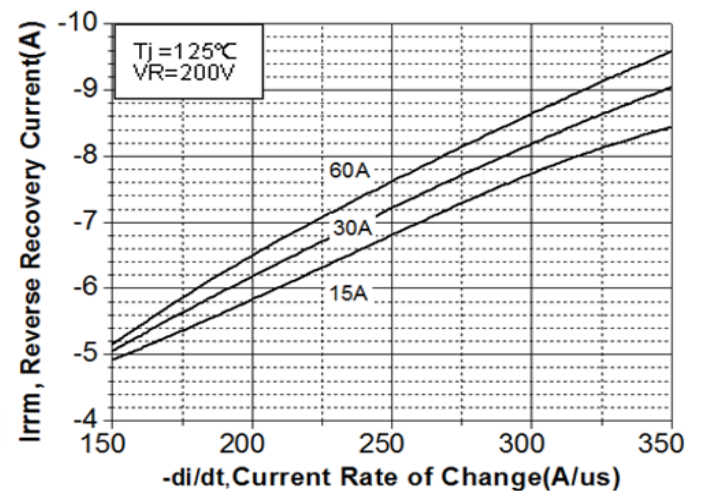


Fig.7 Forward current derating curve

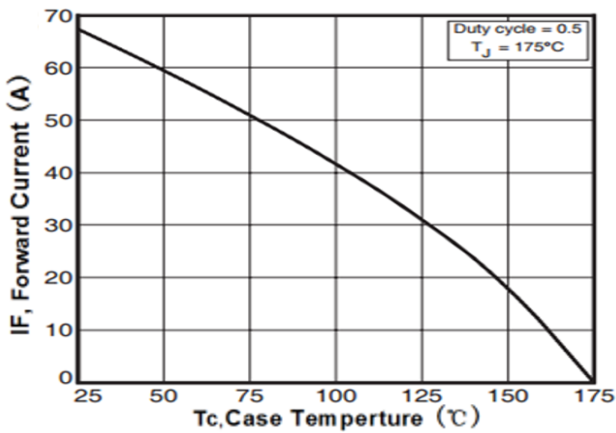
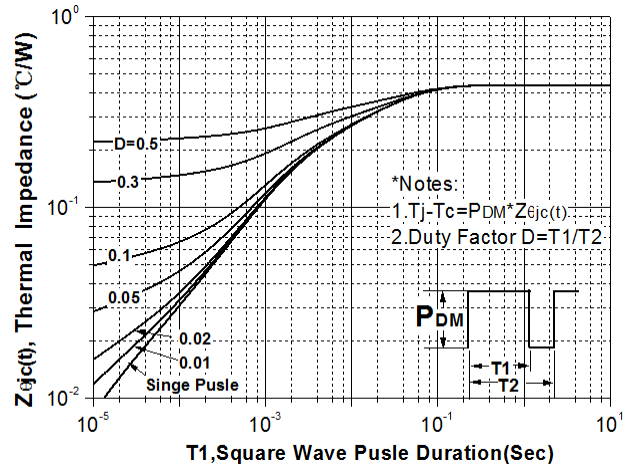


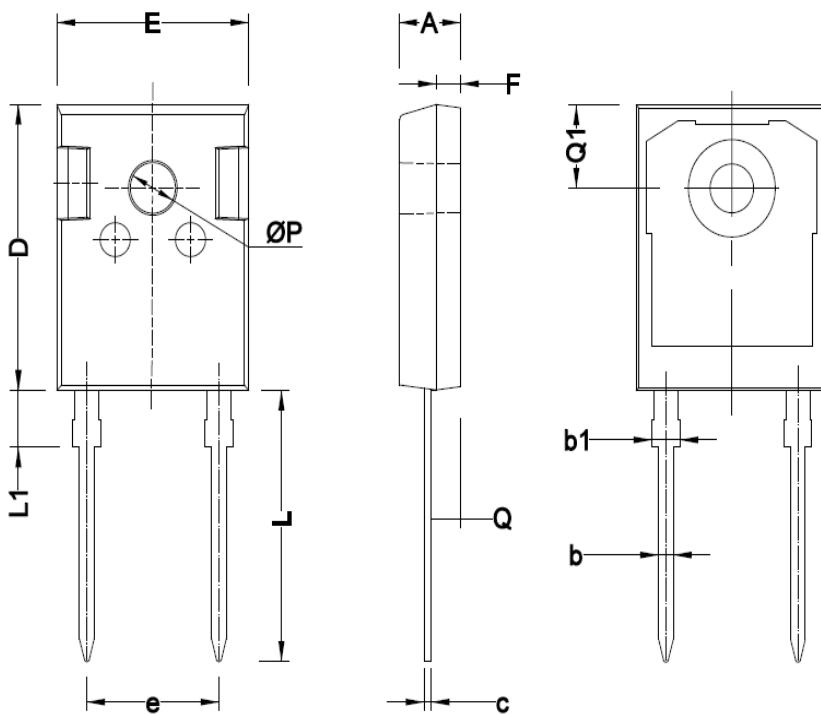
Fig.8 Transient thermal response curve



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
ØP	3.40	3.80
Q	2.26	2.56
Q1	6.00	6.40



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