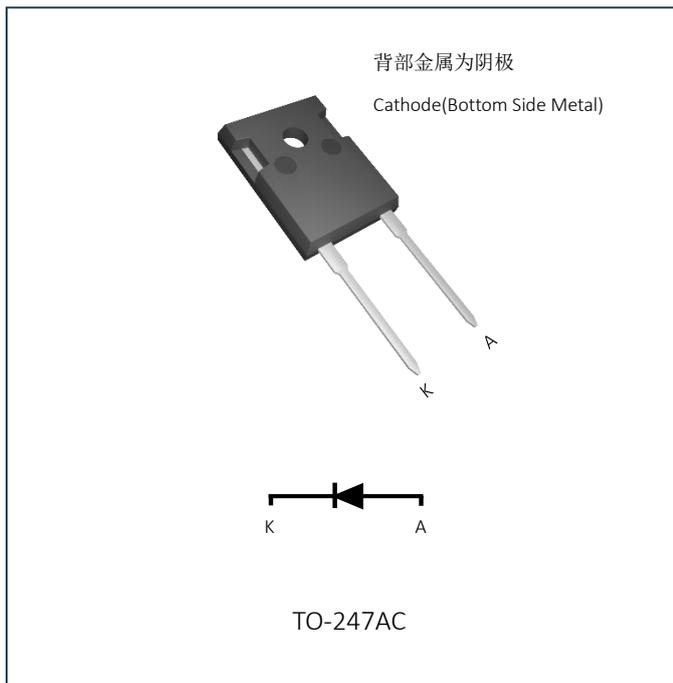


超快软恢复整流

ULTRA SOFT RECOVERY RECTIFIER

封装外形 Package



主要参数 Device summary

Symbol	Value
$I_{F(AV)}$	30A
V_{RRM}	1200V
$V_{F(typ)}$	1.95V@30A 125°C
$I_{R(typ)}$	15 μ A@ V_{RRM} 125°C
$T_{j(max)}$	175°C

产品特点 Features

- 外延芯片 FRED chip
- 低正向压降 Low Forward Voltage
- 软恢复特性 Soft Recovery Features
- 符合 RoHS 指令 2011/65/EU
Compliant to RoHS directive 2011/65/EU
- 焊料浸渍温度最高为 275°C，持续 7 秒
Solder dip 275 °C max. 7 s

产品应用 Typical Applications

开关电源，变换器，逆变器，续流二极管和电池反向保护等。

Typical applications are in switching power supplies, converters, inverters, freewheeling diodes and reverse battery protection.

机械数据 Mechanical Data

- 模塑料符合 UL94 V-0 易燃等级，符合 RoHS 标准
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- 端子：镀锡引线，可焊接 J-STD-002 和 JESD22-B102
Terminals: Tin plated leads, solderable per J-STD-002 and JESD22-B102
- 极性：本体标记
Polarity: As marked on body
- 重量：约 5.6 克
Weight: Approximate 5.6g

最大额定值 Maximum ratings(Ta=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	VRRM	1200	V
正向电流 Forward current	IF	30	A
浪涌电流 Non-repetitive single pulse surge current t=8.3ms	IFSM	250	A
结温 Junction temperature	Tj	-55~+175	°C
存储温度 Storage temperature	TSTG	-55~+175	°C

电特性 Electrical characteristics(Ta=25°C)

项目 Parameter	测试条件 Tests conditions		数值 Value			单位 Unit
			最小值 (min)	典型值 (typ)	最大值 (max)	
VRRM 反向电压	IR=0.05mA		1200	-	-	V
IR 反向漏电	Tj=25°C	VR=VRRM	-	-	10	μA
	Tj=125°C		-	-	500	
VF 正向电压	Tj=25°C	IF=30A	-	-	3.20	V
		Tj=100°C	IF=10A	-	1.45	
	IF=15A		-	1.65	-	
	Tj=125°C		IF=10A	-	1.40	
		IF=15A	-	1.60	-	
Trr 反向恢复时间	Tj=25°C	IF=0.5A IRM=1A IRR=0.25A	-	-	70	ns

热特性 Thermal characteristics(Ta=25°C)

Parameter	Symbol	Value	Unit
结到外壳热阻 Thermal resistance from junction to case	Rth(j-c)	1.2	°C/W

典型特征图 Typical Characteristics

图 1: 正向电流与外壳温度

FIG 1: I_F - T_c

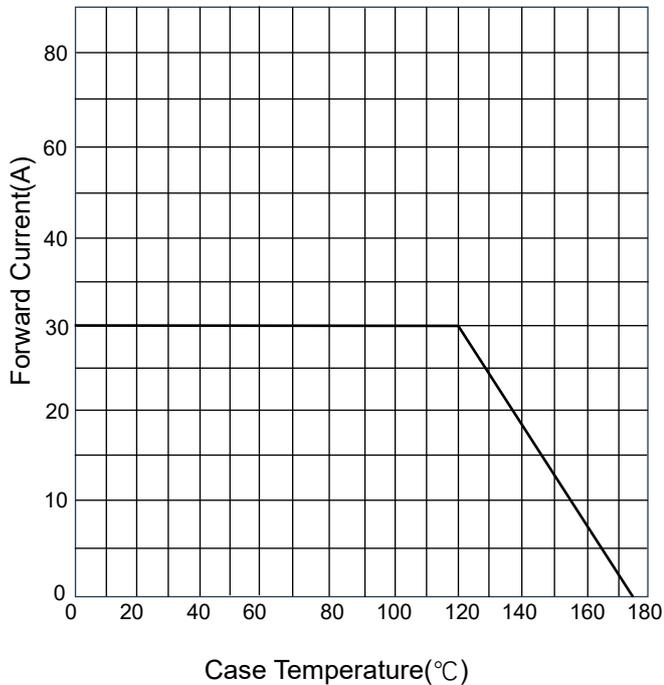


图 2: 正向浪涌循环次数

FIG 2: Surge Forward Current Capability

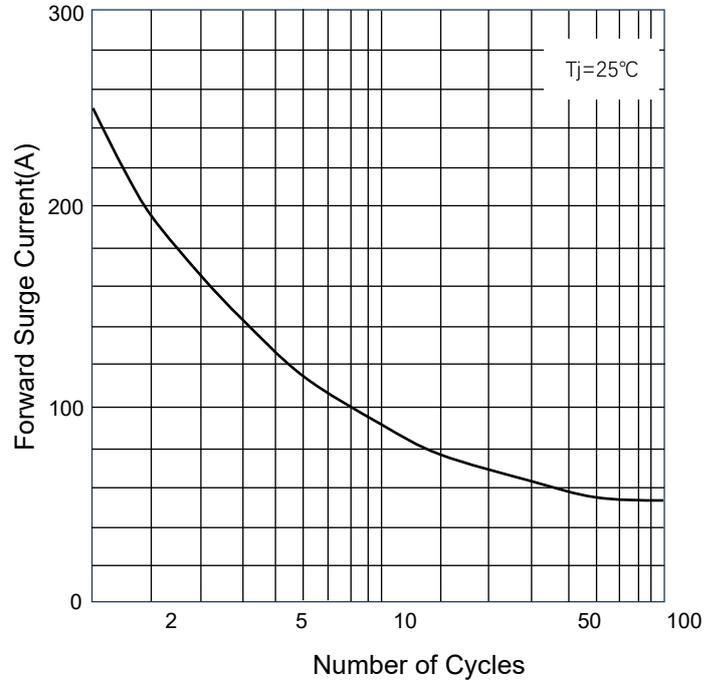


图 3: 反向电压与反向电流

FIG 3: V_R - I_R

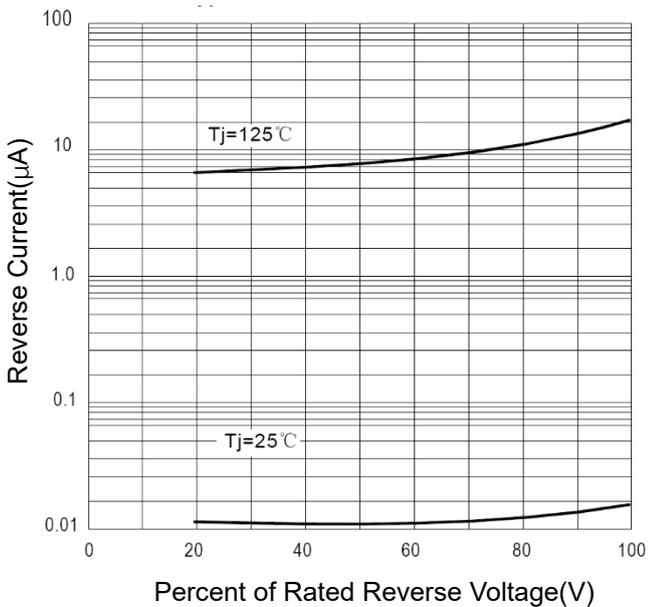
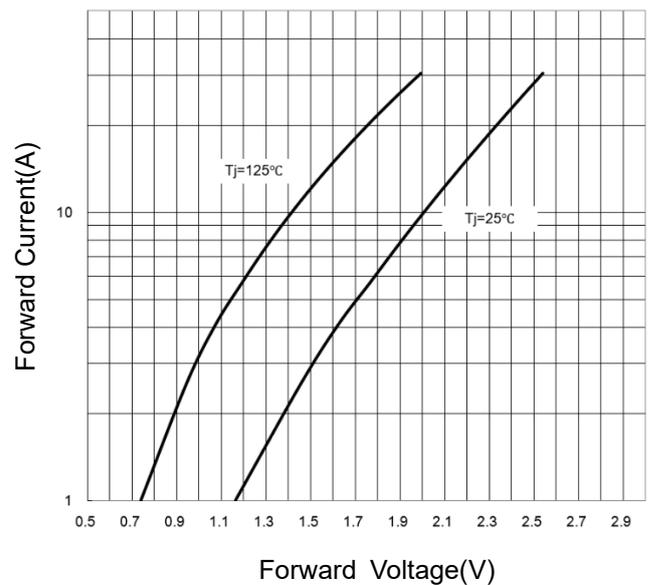
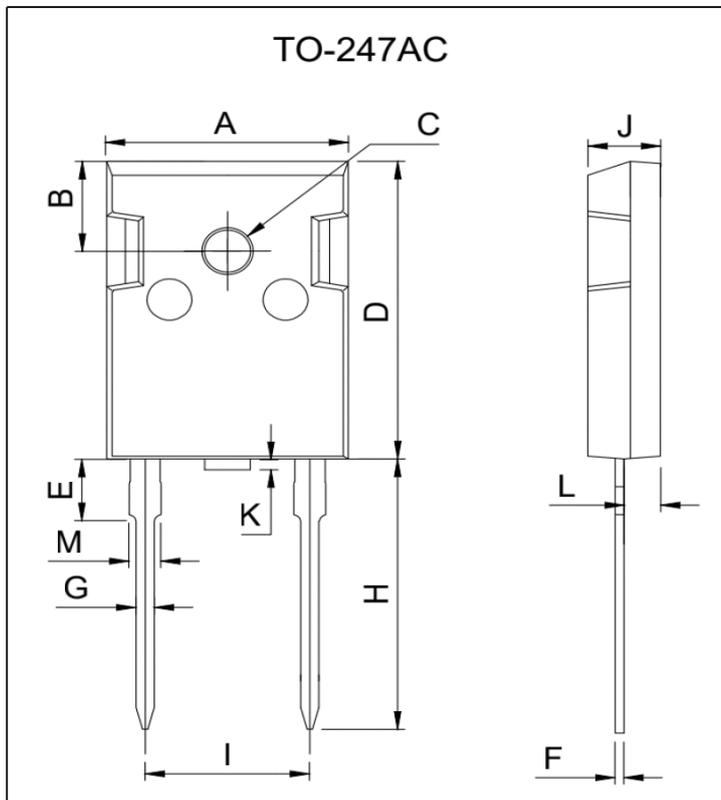


图 4: 正向电流与正向电压

FIG 4: I_F - V_F



外形尺寸 Outline Dimensions



TO-247AC _(mm)			
Dim	Min	Typ	Max
A	15.80	16.00	16.20
B	6.30	6.50	6.70
C	3.05	3.20	3.35
D	21.20	21.50	21.80
E	3.80	4.00	4.20
F	0.50	0.60	0.70
G	1.00	1.20	1.40
H	19.20	19.50	19.70
I	10.70	10.90	11.10
J	4.60	4.80	5.00
K	0.60	0.80	1.00
L	2.20	2.40	2.60

订购信息 Ordering Information

订单型号 Order code	印记 Marking	包装形式 Delivery Mode	基本包装 Min PKG (pcs)	盒 Box pcs	箱 Carton pcs	重量 Weight Kg
DSE30H12PG	DSE30H12P	管装 Tube	30	600	2400	18.5
DSE30H12PH						

注 note:

- “G”为无铅版本，“H”为无卤版本。“G” is Lead-free version, “H” is Halogen-free version.

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