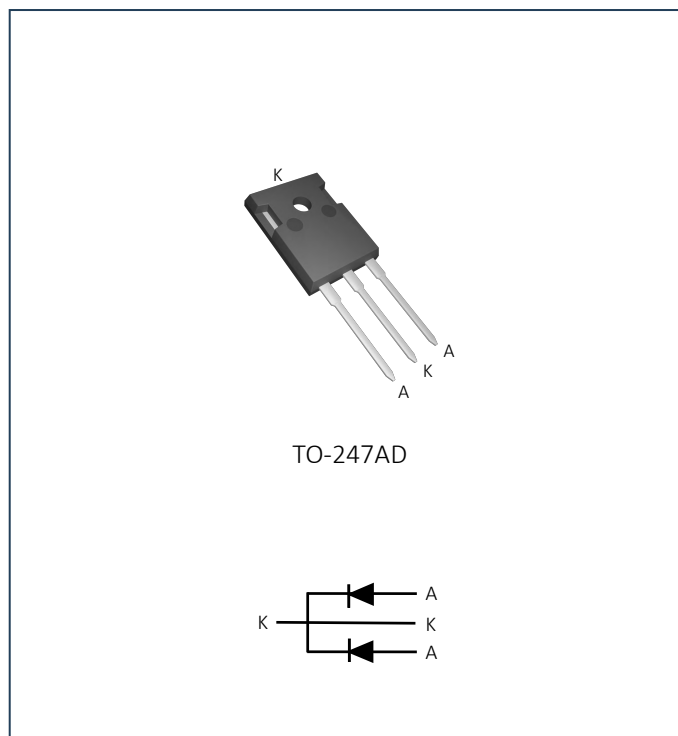


DSEK30S12P

超快软特性二极管整流器

Ultra soft Recovery Rectifier

封装外形 Package



主要参数 Device summary

Symbol	Value
$I_F(AV)$	30A
V_{RRM}	1200V
$V_F(typ)$	1.43V@15A 125°C
$I_R(typ)$	0.05mA@1200V 125°C
$T_J(max)$	175°C

机械数据 Mechanical Data

- 模塑料符合 UL 94 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

产品特点 Features

- 超快恢复时间 Ultra-fast recovery time
- 低正向压降 Low forward voltage
- 高结温 High Junction temperature
- 低漏电 Low leakage current
- 高可靠性 High reliability
- 环保产品 RoHS product

最大额定值 Maximum ratings

项目 Parameter	符合 Symbol	数值 Value	单位 Unit
反向电压 Peak repetitive reverse voltage	VRRM	1200	V
平均正向电流 Average forward current	IF(AV)	30	A
		15	
浪涌电流 Non-repetitive single pulse surge current t=8.3ms	IFSM	150	A
结温 Junction temperature	Tj	-55~+175	°C
存储温度 Storage temperature	TSTG	-55~+175	°C

电特性 Electrical characteristics(Tc=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)	
反向电压 VRRM	IR=0.05mA		1200	-	-	V
反向漏电流 IR	Tj=25°C	VR=VRRM	-	-	0.05	mA
	Tj=125°C		-	-	0.5	
正向电压 VF	Tj=25°C	IF=15A	-	2.5	3.2	V
	Tj=125°C	IF=1A	-	0.85	-	
		IF=7.5A	-	1.52	-	
		IF=15A	-	1.92	-	
反向恢复时间 Trr	Tj=25°C	Reverse recovery condition IF=0.5A, IR=1.0A, Irr=0.25A	-	32	-	nS

热特性 Thermal characteristics(Tc=25°C)

项目 Parameter	符合 Symbol	数值 Value	单位 Unit
热阻 Thermal resistance from junction to case	Rth(j-c)	1.0	°C/W

典型特征曲线图 Typical Characteristic Curve

图 1: 正向电流与外壳温度

FIG 1: I_F - T_c

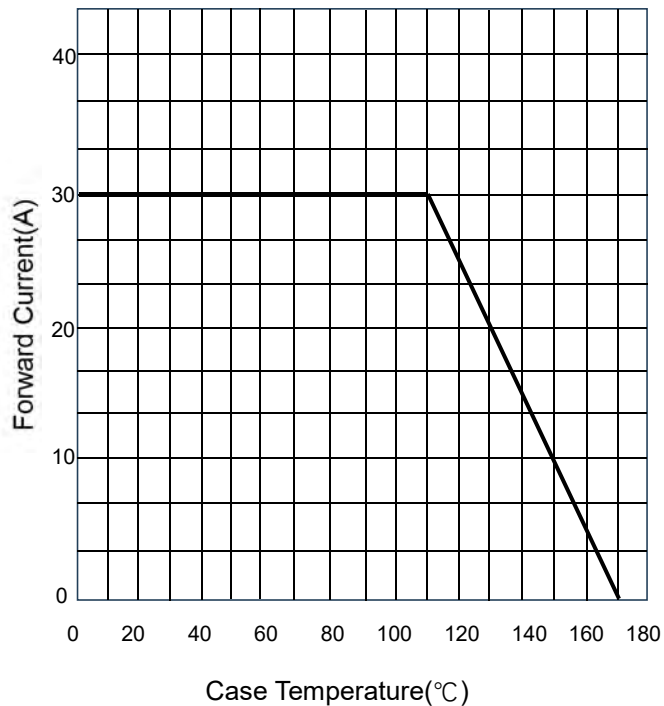


图 2: 正向浪涌循环次数

FIG 2: Surge Forward Current Capability

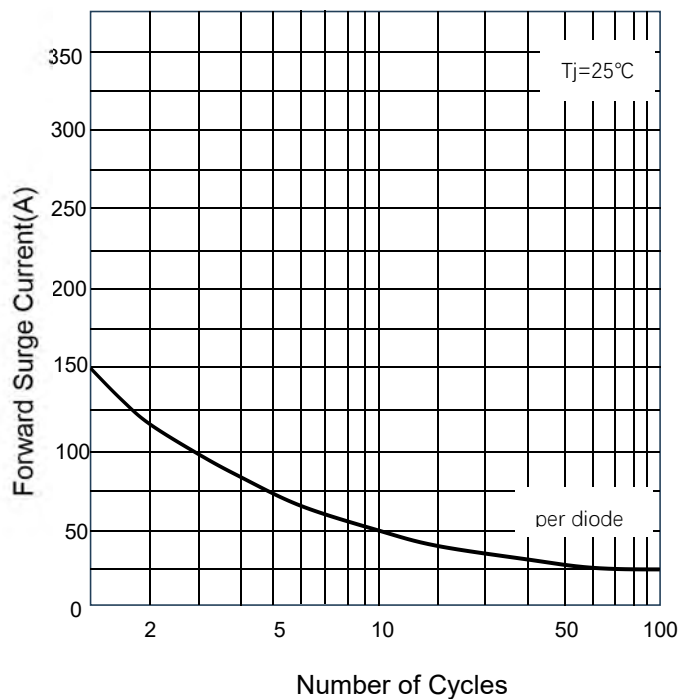


图 3: 反向电压与反向电流

FIG 3: V_R - I_R

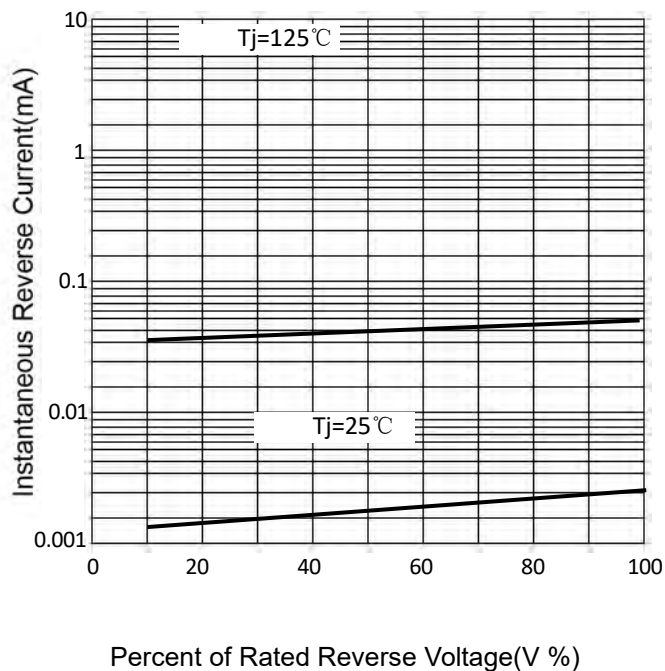
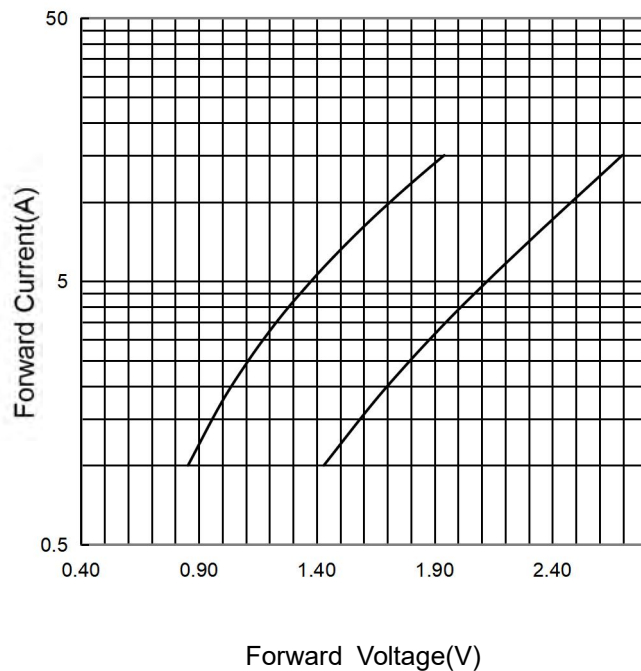
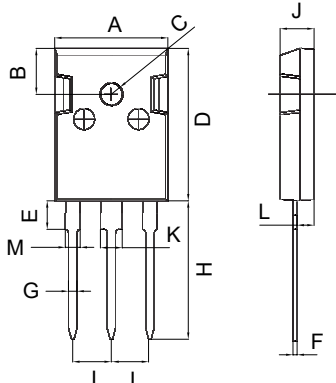


图 4: 正向电流与正向电压

FIG 4: I_F - V_F



外形尺寸图及焊盘布局参考 Outline Dimensions and Pad Layout Reference

TO-247AD		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	5.35	5.45	5.60
		J	4.60	4.80	5.00
		K	2.90	3.10	3.30
		L	2.20	2.40	2.60
		尺寸单位: (mm) Dimensions in millimeters			

订购信息 Ordering Information

订单型号 Order code	印记 Marking	封装 Package	重量 Weight (g)	包装形式 Packing	基本包装 Base qty (pcs)	盒 Box (pcs)	箱 Carton (pcs)
WDSEK30S12PP	DSEK30S12P	TO-247AD	5.82	管装 Tube	30	600	2400

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