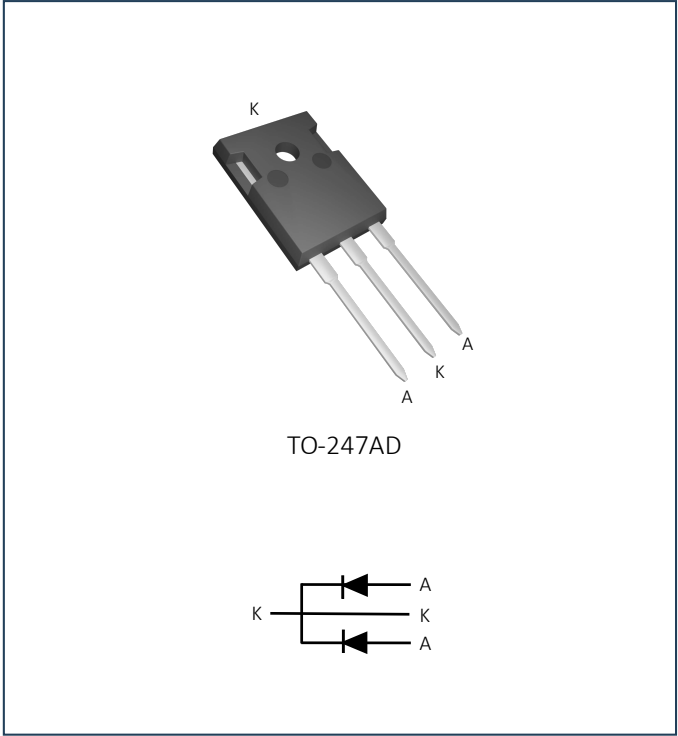


**DSEK30S06P**

超快软恢复特性二极管整流器  
Ultra Soft Recovery Rectifier

封装外形 Package



主要参数 Device summary

| Symbol       | Value           |
|--------------|-----------------|
| $I_F(AV)$    | 30A             |
| $V_{RRM}$    | 600V            |
| $V_F(typ)$   | 1.12V/15A@125°C |
| $I_R(typ)$   | 0.05mA@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

- 超软恢复时间 Ultra soft recovery times
- 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<br>Parameter                                             | 符合<br>Symbol | 数值<br>Value | 单位<br>Unit |
|-------------------------------------------------------------|--------------|-------------|------------|
| 反向电压<br>Peak repetitive reverse voltage                     | $V_{RRM}$    | 600         | V          |
| 平均正向电流<br>Average forward current                           | $I_{F(AV)}$  | 30          | A          |
|                                                             | per device   | 30          |            |
|                                                             | per diode    | 15          |            |
| 浪涌电流<br>Non-repetitive single pulse surge current $t=8.3ms$ | $I_{FSM}$    | 200         | A          |
| 结温<br>Junction temperature                                  | $T_j$        | -55~+175    | °C         |
| 存储温度<br>Storage temperature                                 | $T_{STG}$    | -55~+175    | °C         |

## 电特性 Electrical characteristics( $T_c=25^{\circ}C$ )

| 项目<br>Parameter    | 测试条件<br>Tests conditions |                                                                  | 数值 Value |          |          | 单位<br>Unit |
|--------------------|--------------------------|------------------------------------------------------------------|----------|----------|----------|------------|
|                    |                          |                                                                  | 最小值(min) | 典型值(typ) | 最大值(max) |            |
| 反向电压<br>$V_{RRM}$  | $I_R=0.05mA$             |                                                                  | 600      | -        | -        | V          |
| 反向漏电流<br>$I_R$     | $T_j=25^{\circ}C$        | $V_R=V_{RRM}$                                                    | -        | -        | 0.03     | mA         |
|                    | $T_j=125^{\circ}C$       |                                                                  | -        | -        | 0.3      |            |
| 正向电压<br>$V_F$      | $T_j=25^{\circ}C$        | $I_F=15A$                                                        | -        | -        | 1.6      | V          |
|                    | $T_j=125^{\circ}C$       | $I_F=1A$                                                         | -        | 0.64     | -        |            |
|                    |                          | $I_F=7.5A$                                                       | -        | 0.95     | -        |            |
|                    |                          | $I_F=15A$                                                        | -        | 1.12     | -        |            |
| 反向恢复时间<br>$T_{rr}$ | $T_j=25^{\circ}C$        | Reverse recovery condition<br>$I_F=0.5A, I_R=1.0A, I_{rr}=0.25A$ | -        | -        | 35       | nS         |

## 热特性 Thermal characteristics( $T_c=25^{\circ}C$ )

| 项目<br>Parameter                                | 符合<br>Symbol  | 数值<br>Value | 单位<br>Unit |
|------------------------------------------------|---------------|-------------|------------|
| 热阻<br>Thermal resistance from junction to case | $R_{th(j-c)}$ | 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:  $I_F$ - $T_c$

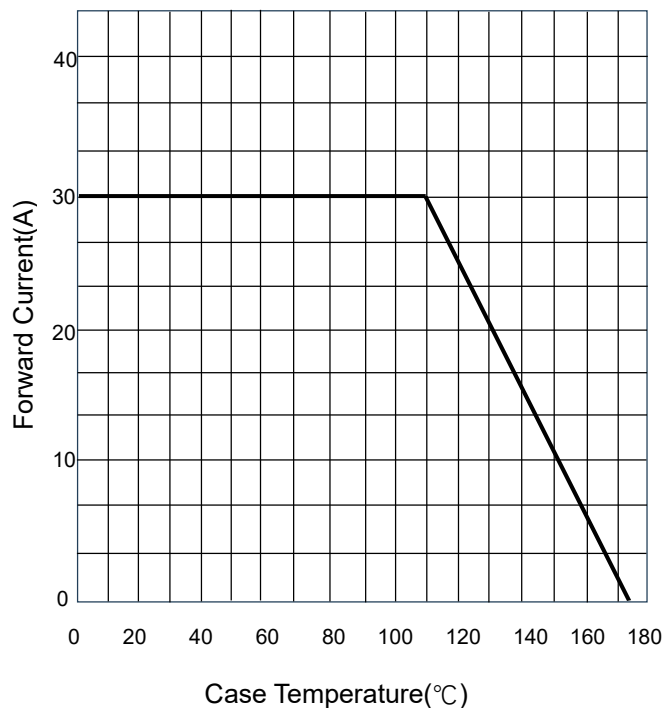


图 2: 正向浪涌循环次数

FIG 2: Surge Forward Current Capability

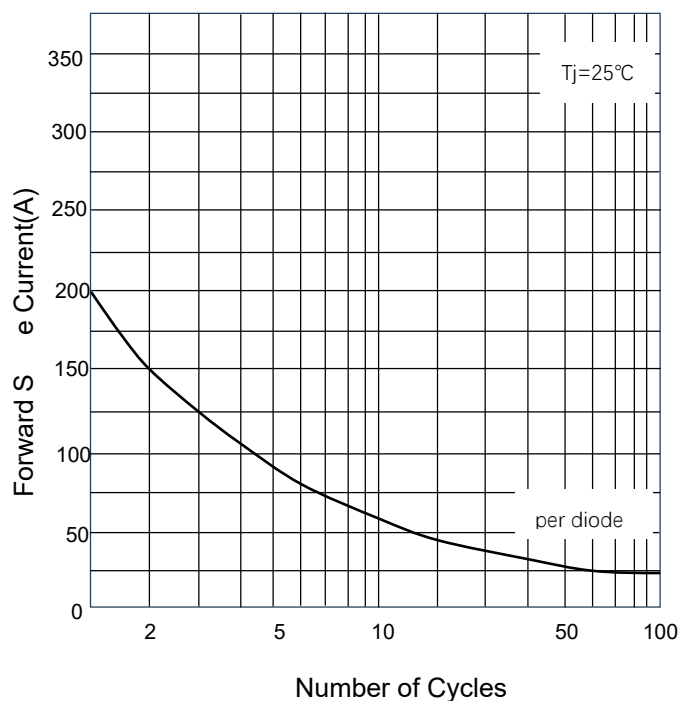


图 3: 反向电压与反向电流

FIG 3:  $V_R$ - $I_R$

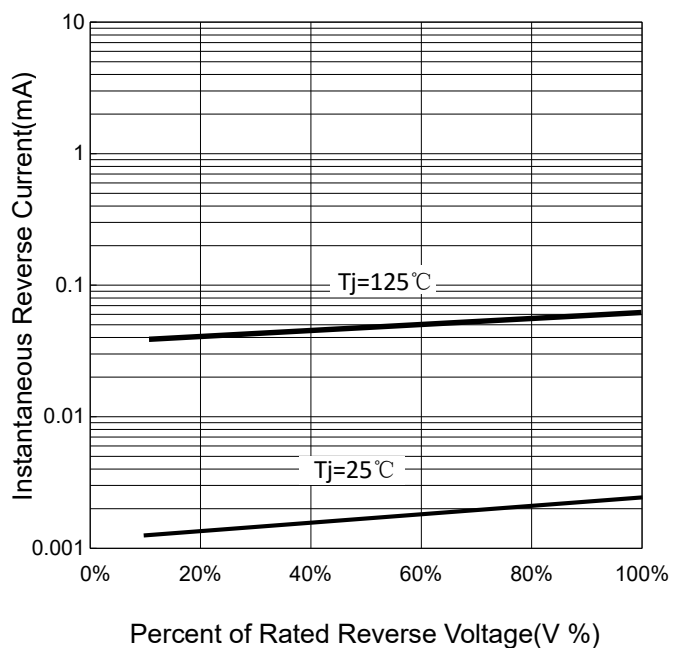
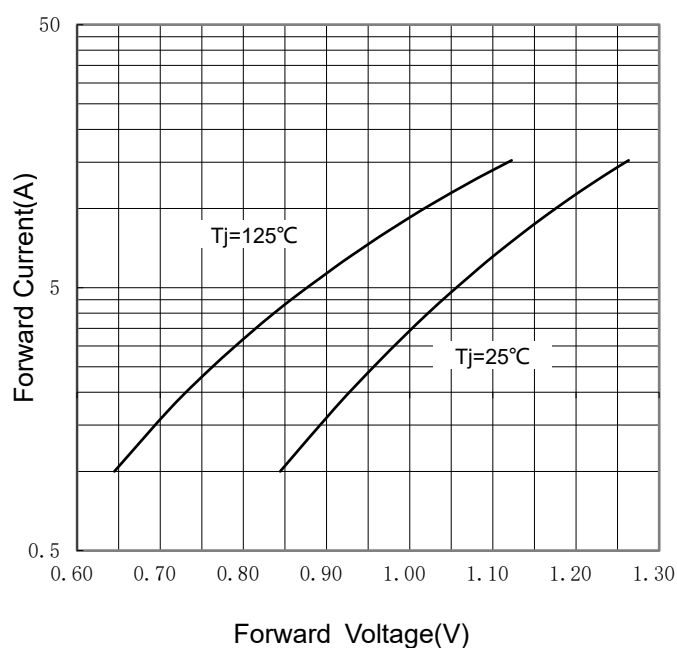
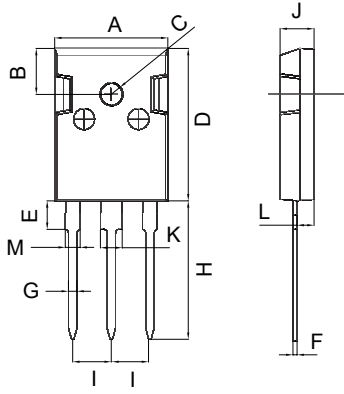


图 4: 正向电流与正向电压

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)<br>Dimensions in millimeters                                           |       |       |       |

## 订购信息 Ordering Information

| 订单型号<br>Order code | 印记<br>Marking | 封装<br>Package | 重量<br>Weight<br>(g) | 包装形式<br>Packing | 基本包装<br>Base qty<br>(pcs) | 盒<br>Box<br>(pcs) | 箱<br>Carton<br>(pcs) |
|--------------------|---------------|---------------|---------------------|-----------------|---------------------------|-------------------|----------------------|
| WDSEK30S06P000P    | DSEK30S06P    | TO-247AD      | 5.82                | 管装 Tube         | 30                        | 600               | 2400                 |

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