



# IRF9240

## 主要参数

## Main Characteristics

|                  |               |
|------------------|---------------|
| $I_D$            | -11 A         |
| $V_{DS}$         | -200 V        |
| $R_{DS(on)-max}$ | 0.35 $\Omega$ |

## 用途

电机控制  
开关电源  
斩波电路  
逆变器

## Applications

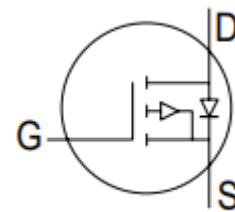
Motor controls  
Switching Applications  
Choppers  
Inverters

## 产品特性

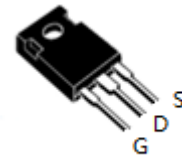
产品全部经过雪崩测试  
RoHS 产品

## Features

100% avalanche tested  
RoHS product



TO-247S



绝对最大额定值 **Absolute Ratings** (Tc=25℃)

| 项 目<br>Parameter                                               | 符 号<br>Symbol    | 数 值<br>Value | 单位<br>Unit |
|----------------------------------------------------------------|------------------|--------------|------------|
| 最高漏极—源极直流电压<br>Drain-Source Voltage                            | V <sub>DSS</sub> | -200         | V          |
| 连续漏极电流<br>Drain Current -continuous                            | I <sub>D</sub>   | -11          | A          |
| 最大脉冲漏极电流<br>Drain Current – pulse                              | I <sub>DM</sub>  | -44          | A          |
| 最高结温<br>Operating Junction Temperature                         | T <sub>J</sub>   | +150         | ℃          |
| 存储温度<br>Storage Temperature Range                              | T <sub>STG</sub> | -55~+150     | ℃          |
| 引线最高焊接温度<br>Maximum Lead Temperature for Soldering<br>Purposes | T <sub>L</sub>   | 300          | ℃          |

\*漏极电流由最高结温限制

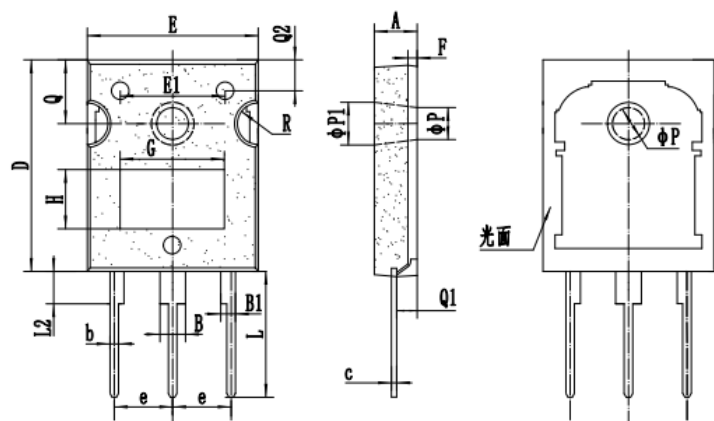
\*Drain current limited by maximum junction temperature

## 电特性 Electrical Characteristics

| 项 目<br>Parameter                                                      | 符 号<br>Symbol | 测试条件<br>Tests conditions                       | 最小<br>Min | 典型<br>Typ | 最大<br>Max | 单位<br>Units |
|-----------------------------------------------------------------------|---------------|------------------------------------------------|-----------|-----------|-----------|-------------|
| 关态特性 Off –Characteristics                                             |               |                                                |           |           |           |             |
| 漏—源击穿电压<br>Drain-Source Voltage                                       | $BV_{DSS}$    | $I_D=250\mu A, V_{GS}=0V$                      | -200      | -         | -         | V           |
| 零栅压下漏极漏电流<br>Zero Gate Voltage Drain Current                          | $I_{DSS}$     | $V_{DS}=-200V, V_{GS}=0V,$<br>$TC=25^{\circ}C$ | -         | -         | 5         | $\mu A$     |
| 正向栅极体漏电流<br>Forward Gate-body leakage current                         | $I_{GSSF}$    | $V_{DS}=0V, V_{GS}=+20V$                       | -         | -         | 100       | nA          |
| 反向栅极体漏电流<br>Reverse Gate-body leakage current                         | $I_{GSSR}$    | $V_{DS}=0V, V_{GS}=-20V$                       | -         | -         | -100      | nA          |
| 通态特性 On-Characteristics                                               |               |                                                |           |           |           |             |
| 阈值电压<br>Gate Threshold Voltage                                        | $V_{GS(th)}$  | $V_{DS} = V_{GS}, I_D=250\mu A$                | -2.0      | =         | -4.0      | V           |
| 静态导通电阻<br>Static Drain-Source On-Resistance                           | $R_{DS(ON)}$  | $V_{GS}=-10V, I_D=-5.5A$                       | -         | 0.29      | 0.35      | $\Omega$    |
| 漏—源二极管特性及最大额定值 Drain-Source Diode Characteristics and Maximum Ratings |               |                                                |           |           |           |             |
| 正向压降<br>Drain-Source Diode Forward                                    | $V_{FSD}$     | $V_{GS}=0V, I_S=-11A$                          | 0-        | -         | 1.6       | V           |

外形尺寸 PACKAGE MECHANICAL DATA

TO-247S



| 符号<br>SYMBOL | MM    |       |       |
|--------------|-------|-------|-------|
|              | MIN   | NOM   | MAX   |
| *A           | 4.90  | 5.00  | 5.10  |
| *B           | 2.95  | 3.05  | 3.15  |
| *B1          | 1.95  | 2.05  | 2.15  |
| *b           | 1.15  | 1.20  | 1.30  |
| *c           | 0.48  | 0.55  | 0.63  |
| *D           | 19.80 | 20.00 | 20.20 |
| *E           | 15.40 | 15.60 | 15.80 |
| E1           | 8.70  | 8.80  | 8.90  |
| *e           | 5.38  | 5.44  | 5.50  |
| F            | 1.22  | 1.27  | 1.32  |
| G            | 9.70  | 9.80  | 9.90  |
| H            | 5.95  | 6.00  | 6.05  |
| *L           | 14.30 | 14.50 | 14.80 |
| *L2          | 3.80  | 4.00  | 4.20  |
| *Q           | 5.40  | 5.50  | 5.60  |
| *Q1          | 2.40  | 2.50  | 2.60  |
| Q2           | 2.25  | 2.30  | 2.35  |
| *ΦP          | 3.50  | 3.60  | 3.70  |
| ΦP1          | 4.00  | 4.10  | 4.20  |
| R            | 2.45  | 2.50  | 2.55  |