

描述 / Descriptions

SOT-363 塑封封装 N 沟道 MOS 场效应管。
N-CHANNEL MOSFET in a SOT-363 Plastic Package.

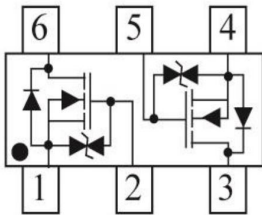
特征 / Features

输出电阻小、性能高；SOT-363 封装，利于设计安装。静电保护达 1500V。无卤产品。
Low RDS(on), rugged and reliable, compact industry standard SOT-363 surface mount package. ESD protected up to 1500V. HF product.

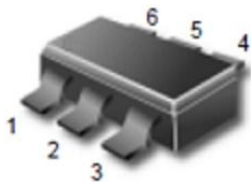
用途 / Applications

用于直流-直流转换器，电源管理便携式和电池供电的产品。
Typical applications are dc-dc converters, portable power management and battery-Charging products.

内部等效电路 / Equivalent Circuit



引脚排列 / Pinning



PIN 1 : S1 PIN 2 : G1 PIN 3 : D2 PIN 4 : S2 PIN 5 : G2 PIN 6 : D1

印章代码 / Marking

| | |
|---------|------|
| Marking | 见印章页 |
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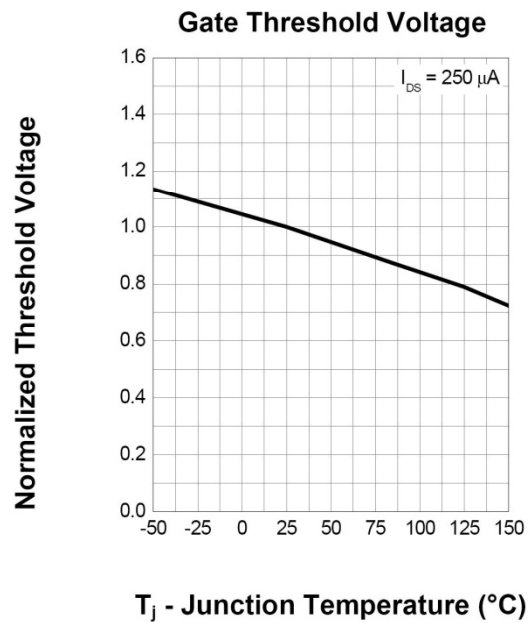
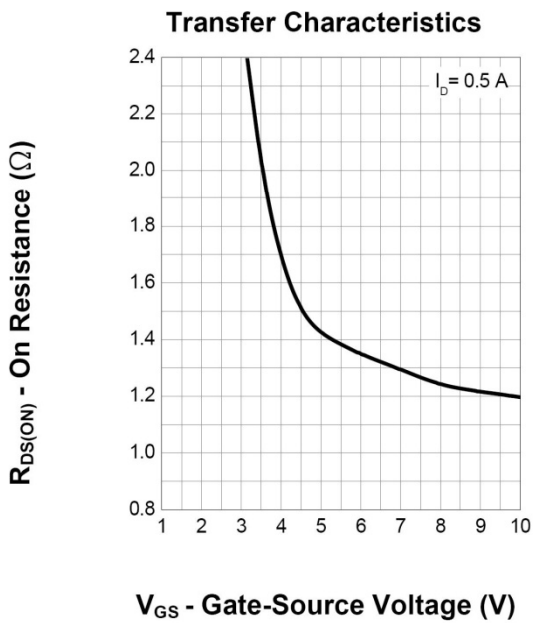
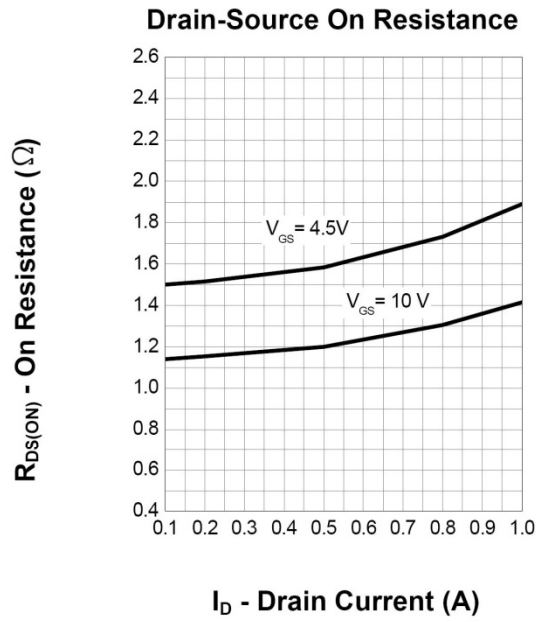
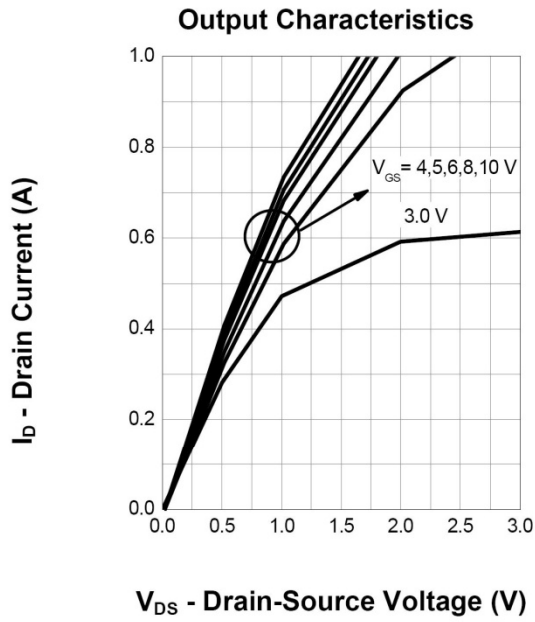
极限参数 / Absolute Maximum Ratings(Ta=25°C)

| 参数 Parameter | 符号 Symbol | 数值 Rating | 单位 Unit |
|---|-----------------|--------------|------------|
| Drain-Source Voltage | V_{DSS} | 50 | V |
| Gate-Source Voltage | V_{GSS} | ±20 | V |
| Drain Current – Continuous | I_D | 200 | mA |
| Peak Drain Current | I_{DM} | 800 | mA |
| Power Dissipation | P_D | 380 | mW |
| Thermal Resistance, Junction-to-Ambient | $R_{\theta JA}$ | 328 | °C/W |
| Storage Temperature Range | T_{stg} | -55~150 | °C |

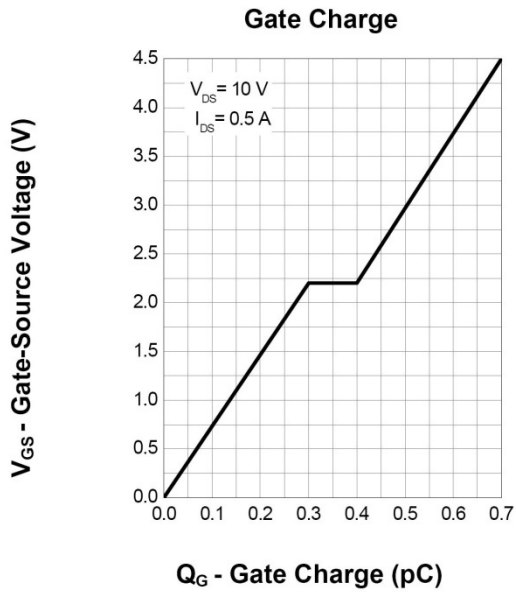
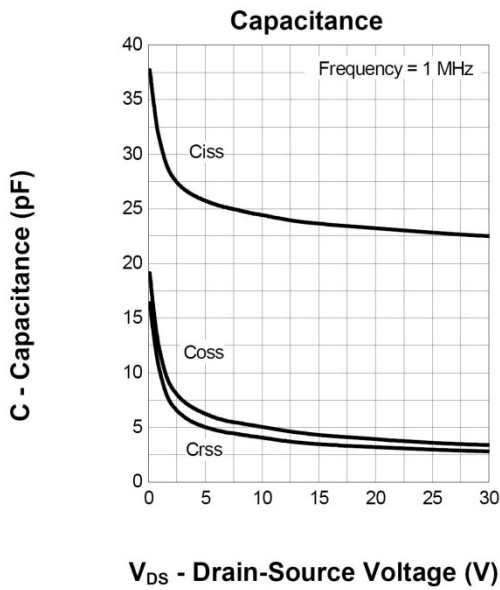
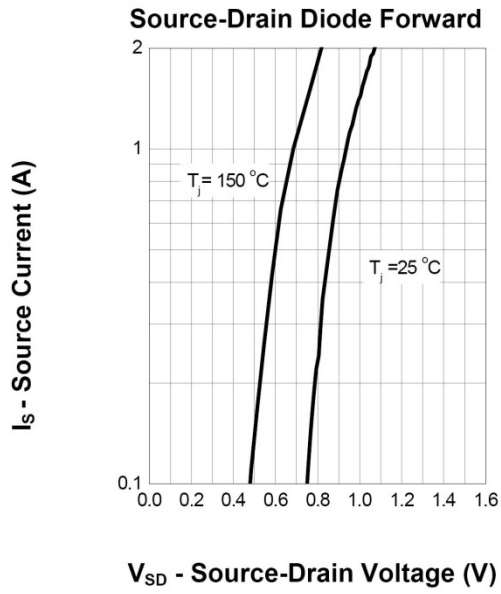
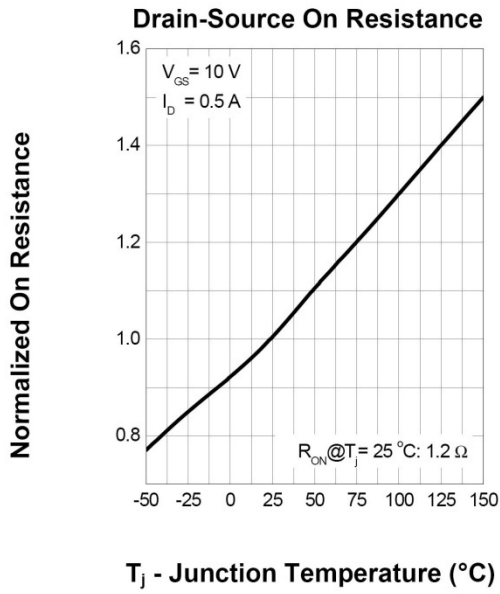
电性能参数 / Electrical Characteristics(Ta=25°C)

| 参数 Parameter | 符号 Symbol | 测试条件 Test Conditions | 最小值 Min | 典型值 Typ | 最大值 Max | 单位 Unit |
|-----------------------------------|-----------------|---|------------|------------|------------|------------|
| Drain-to-Source Breakdown Voltage | $V_{(BR)DSS}$ | $V_{GS} = 0V \quad I_D = 250 \mu A$ | 50 | | | V |
| Zero Gate Voltage Drain Current | $I_{DSS(1)}$ | $V_{GS}=0 \quad V_{DS}=25V$ | | | 0.1 | μA |
| | $I_{DSS(2)}$ | $V_{GS}=0 \quad V_{DS}=50V$ | | | 0.5 | μA |
| Gate-Body Leakage. | I_{GSS} | $V_{DS}=0V \quad V_{GS}=\pm 20$ | | | ±10 | μA |
| Gate Threshold Voltage | $V_{GS(th)}$ | $V_{DS}=V_{GS} \quad I_D=1.0mA$ | 0.5 | | 1.5 | V |
| Static Drain-Source On-Resistance | $R_{DS(on)(1)}$ | $V_{GS}=10V \quad I_D=200mA$ | | 2.5 | 3.5 | Ω |
| | $R_{DS(on)(2)}$ | $V_{GS}=4.5V \quad I_D=200mA$ | | 3.1 | 5 | Ω |
| | $R_{DS(on)(3)}$ | $V_{GS}=2.75V \quad I_D<200mA$ $T_a=-40^\circ C \text{ to } +85^\circ C$ | | 5.6 | 10 | Ω |
| Forward Transconductance | g_{FS} | $V_{DS}=25V \quad I_D=200mA$ | 100 | | | mS |
| Input Capacitance | C_{iss} | $V_{DS} = 25V \quad V_{GS} = 0$ $f = 1.0 \text{ MHz}$ | | 22.8 | | pF |
| Output Capacitance | C_{oss} | $V_{DS} = 25V \quad V_{GS} = 0$ $f = 1.0 \text{ MHz}$ | | 3.5 | | |
| Transfer Capacitance | C_{rss} | $V_{DS} = 25V \quad V_{GS} = 0$ $f = 1.0 \text{ MHz}$ | | 2.9 | | |
| Turn-On Delay Time | $t_{d(on)}$ | $V_{DS} = 30V \quad I_{DS} = 0.5A$ | | 3.8 | | ns |
| Turn-Off Delay Time | $t_{d(off)}$ | | | 19 | 36 | ns |

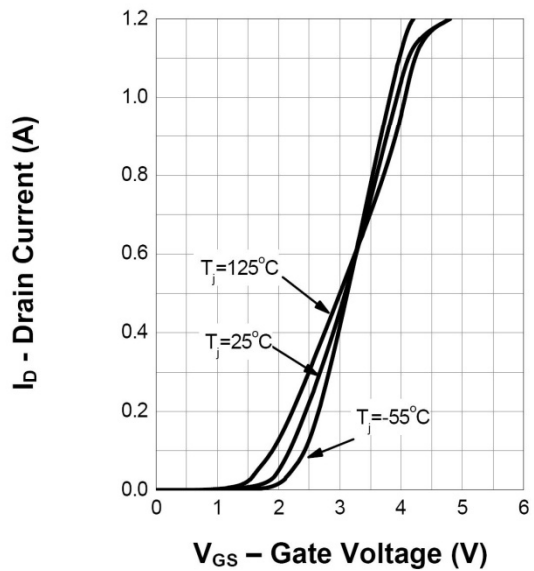
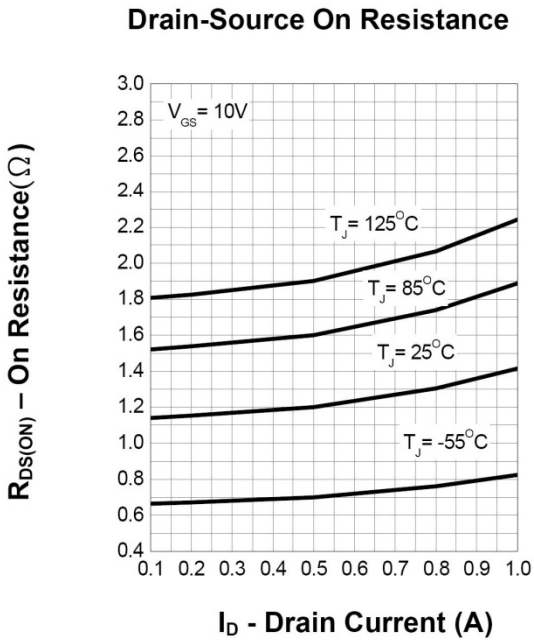
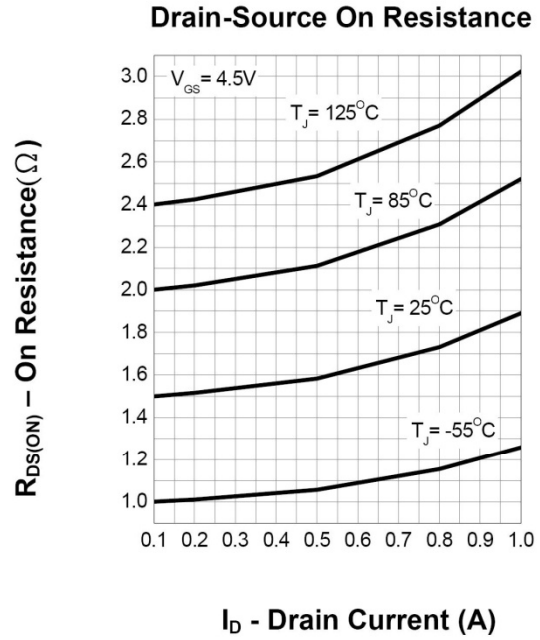
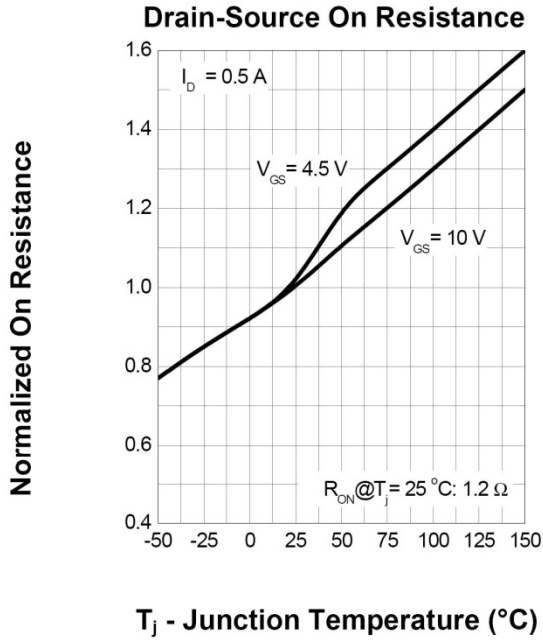
电参数曲线图 / Electrical Characteristic Curve



电参数曲线图 / Electrical Characteristic Curve

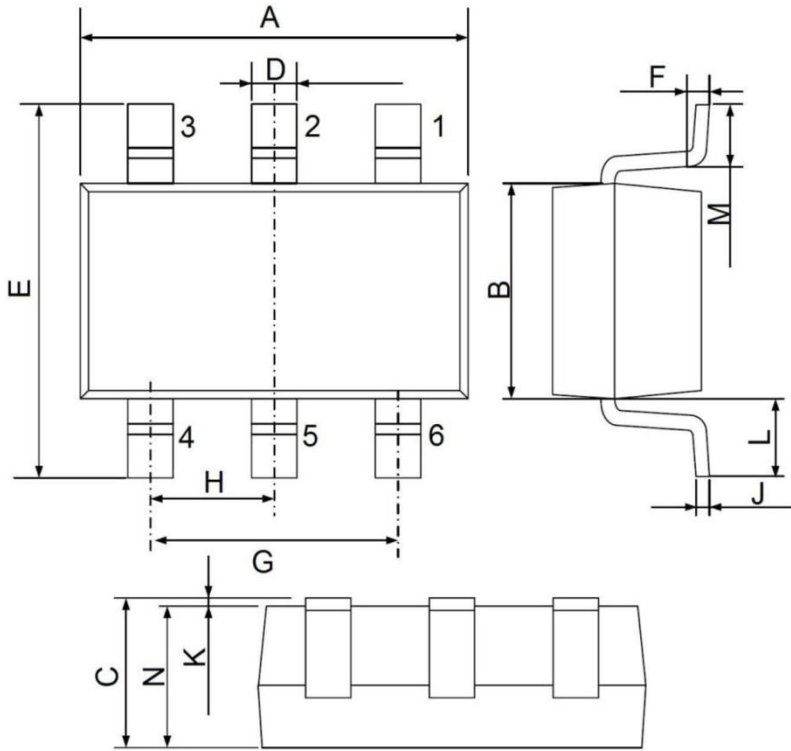


电参数曲线图 / Electrical Characteristic Curve



外形尺寸图 / Package Dimensions

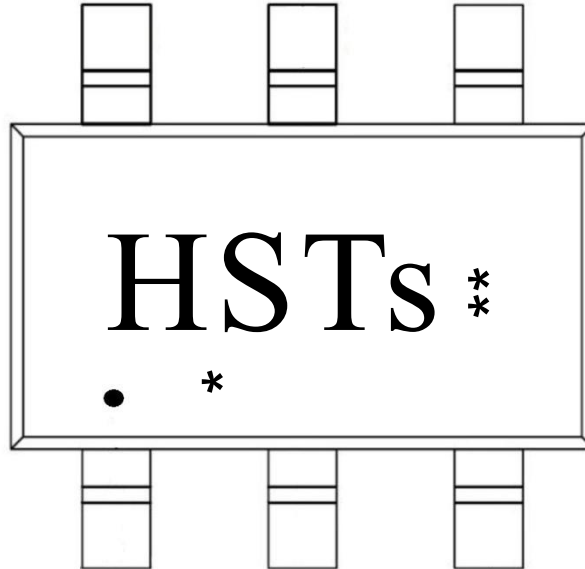
SOT-363-6L



UNIT: mm

| DIM | MIN | MAX |
|-----|------------|------|
| A | 2.00 | 2.20 |
| B | 1.15 | 1.35 |
| C | 0.90 | 1.10 |
| D | 0.15 | 0.35 |
| E | 1.95 | 2.25 |
| F | 0.20 Typ. | |
| G | 1.20 | 1.40 |
| H | 0.65 Typ. | |
| J | 0.08 | 0.15 |
| K | 0.00 | 0.10 |
| L | 0.525 Ref. | |
| M | 0.26 | 0.46 |
| N | 0.90 | 1.10 |

印章说明 / Marking Instructions



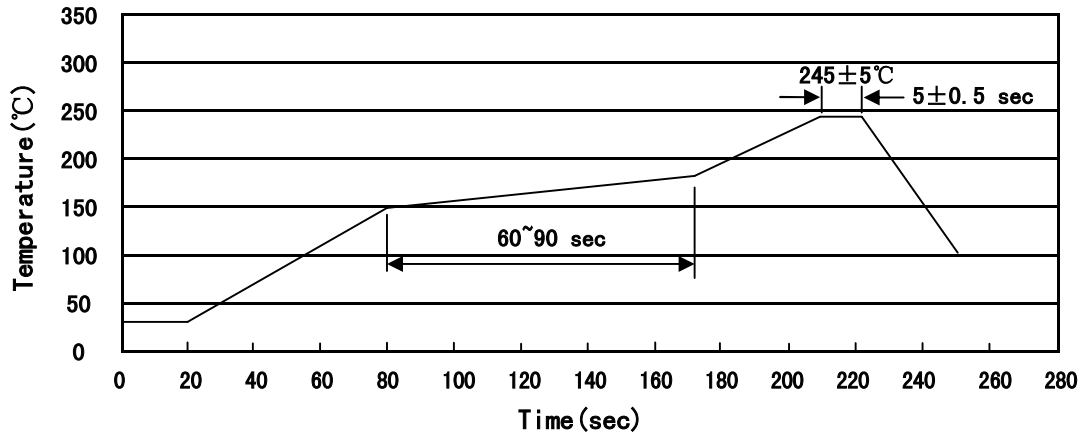
说明：

- ： 为“1”脚
- H： 为公司代码
- STs： 为型号代码
- ***： 为生产批号代码，随生产批号变化

Note:

- ： "1" Pin
- H: Company Code.
- STs: Product Type.
- ***: Lot No. Code, code change with Lot No.

回流焊温度曲线图(无铅) / Temperature Profile for IR Reflow Soldering(Pb-Free)



说明：

- 1、预热温度 150 ~ 180°C，时间 60 ~ 90sec;
- 2、峰值温度 245±5°C，时间持续为 5±0.5sec;
- 3、焊接制程冷却速度为 2 ~ 10°C/sec.

Note:

- 1.Preheating:150~180°C, Time:60~90sec.
- 2.Peak Temp.:245±5°C, Duration:5±0.5sec.
3. Cooling Speed: 2~10°C/sec.

耐焊接热试验条件 / Resistance to Soldering Heat Test Conditions

温度：260±5°C

时间：10±1 sec.

Temp.:260±5°C

Time:10±1 sec

包装规格 / Packaging SPEC.

卷盘包装 / REEL

| Package Type 封装形式 | Units 包装数量 | | | | | Dimension 包装尺寸 (unit: mm ³) | | |
|----------------------|--------------------|-------------------------|------------------------|------------------------------|------------------------|---|-------------|-------------|
| | Units/Reel 只/卷盘 | Reels/Inner Box 卷盘/盒 | Units/Inner Box 只/盒 | Inner Boxes/Outer Box 盒/箱 | Units/Outer Box 只/箱 | Reel | Inner Box 盒 | Outer Box 箱 |
| SOT-363 | 3,000 | 10 | 30,000 | 6 | 180,000 | 7" ×8 | 180×120×180 | 390×385×205 |

使用说明 / Notices