



# 2SK3666

## N-Channel JFET 30V, 0.6 to 3.0mA, 6.5mS, CP

ON Semiconductor®

<http://onsemi.com>

### Applications

- Low-frequency general-purpose amplifier, impedance conversion, infrared sensor applications

### Features

- Small IGSS
- Small Ciss

### Specifications

#### Absolute Maximum Ratings at Ta=25°C

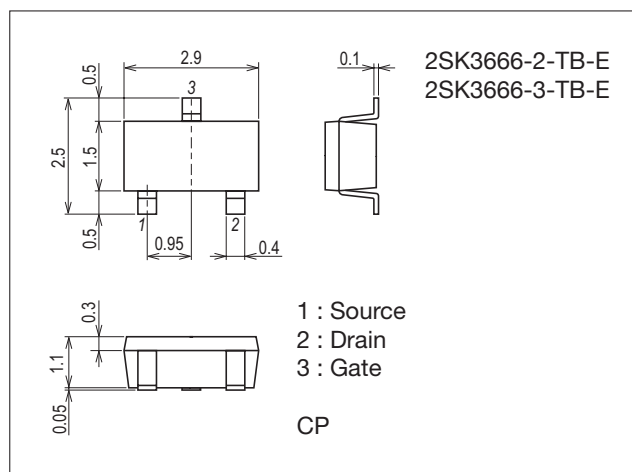
| Parameter                   | Symbol           | Conditions | Ratings     | Unit |
|-----------------------------|------------------|------------|-------------|------|
| Drain-to-Source Voltage     | V <sub>DSX</sub> |            | 30          | V    |
| Gate-to-Drain Voltage       | V <sub>GDS</sub> |            | -30         | V    |
| Gate Current                | I <sub>G</sub>   |            | 10          | mA   |
| Drain Current               | I <sub>D</sub>   |            | 10          | mA   |
| Allowable Power Dissipation | P <sub>D</sub>   |            | 200         | mW   |
| Junction Temperature        | T <sub>j</sub>   |            | 150         | °C   |
| Storage Temperature         | T <sub>stg</sub> |            | -55 to +150 | °C   |

Stresses exceeding those listed in the Maximum Ratings table may damage the device. If any of these limits are exceeded, device functionality should not be assumed, damage may occur and reliability may be affected.

### Package Dimensions

unit : mm (typ)

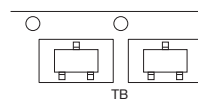
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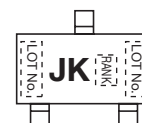
### Product & Package Information

- Package : CP
- JEITA, JEDEC : SC-59, TO-236, SOT-23, TO-236AB
- Minimum Packing Quantity : 3,000 pcs./reel

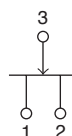
### Packing Type: TL



### Marking



### Electrical Connection



### ORDERING INFORMATION

See detailed ordering and shipping information on page 2 of this data sheet.

Electrical Characteristics at Ta=25°C

| Parameter                                  | Symbol   | Conditions              | Ratings |       |      | Unit |
|--|----------|-------------------------|---------|-------|------|------|
|  |          |                         | min     | typ   | max  |      |
| Gate-to-Drain Breakdown Voltage            | V(BR)GDS | IG=-10μA, VDS=0V        | -30     |       |      | V    |
| Gate Cutoff Current                        | IGSS     | VGS=-20V, VDS=0V        |         |       | -1.0 | nA   |
| Cutoff Voltage                             | VGS(off) | VDS=10V, ID=1μA         | -0.18   | -0.95 | -2.2 | V    |
| Drain Current                              | IDSS     | VDS=10V, VGS=0V         | 0.6*    |       | 3.0* | mA   |
| Forward Transfer Admittance                | yfs      | VDS=10V, VGS=0V, f=1kHz | 3.0     | 6.5   |      | mS   |
| Input Capacitance                          | Ciss     | VDS=10V, VGS=0V, f=1MHz |         | 4     |      | pF   |
| Reverse Transfer Capacitance               | Crss     | VDS=10V, VGS=0V, f=1MHz |         | 1.1   |      | pF   |
| Static Drain-to-Source On-State Resistance | RDS(on)  | VDS=10mV, VGS=10V       |         | 200   |      | Ω    |

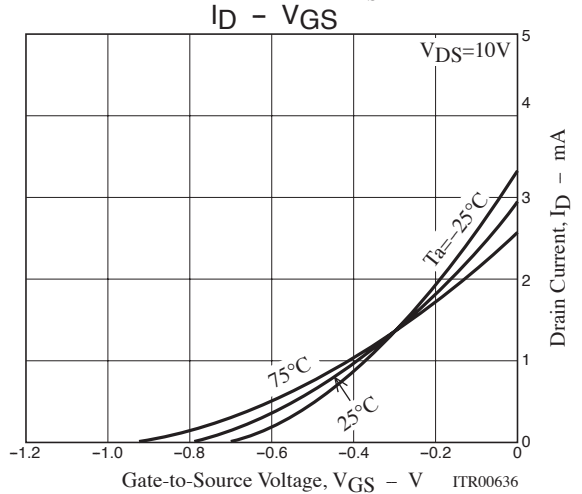
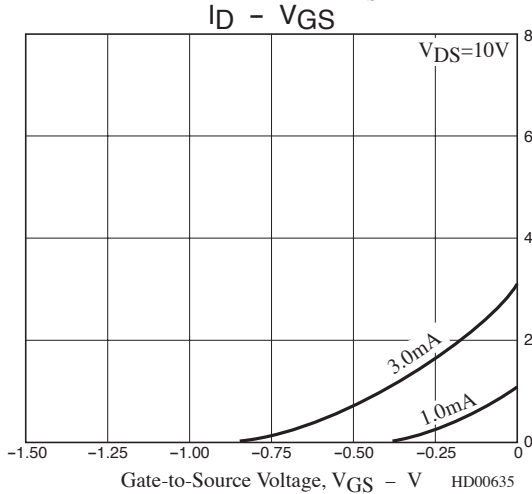
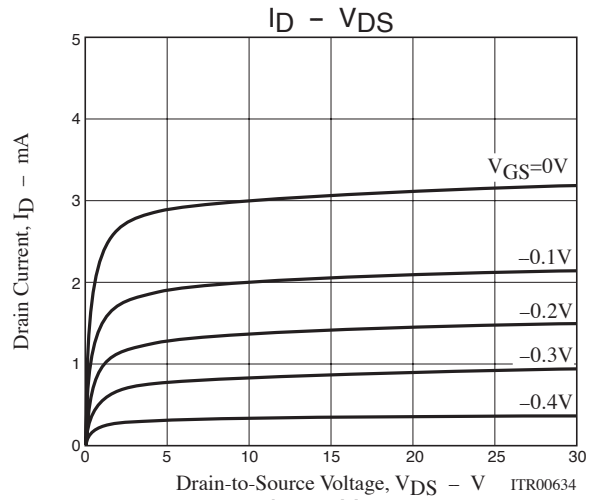
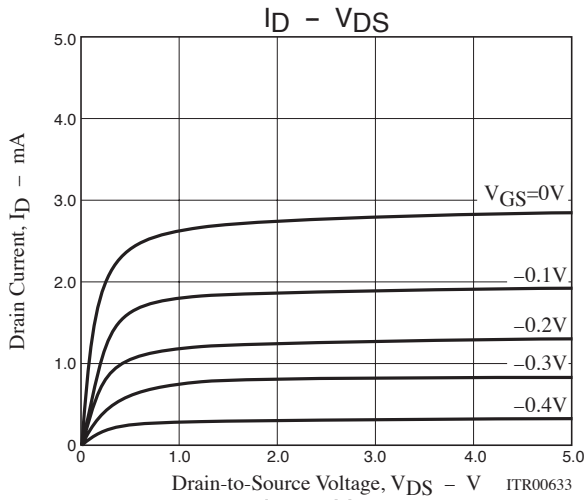
Product parametric performance is indicated in the Electrical Characteristics for the listed test conditions, unless otherwise noted. Product performance may not be indicated by the Electrical Characteristics if operated under different conditions.

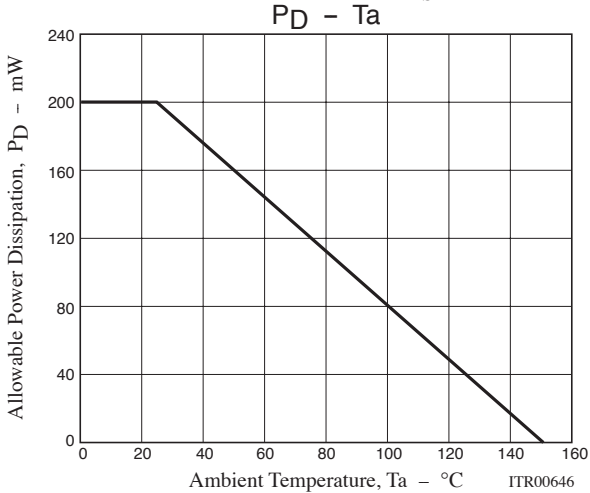
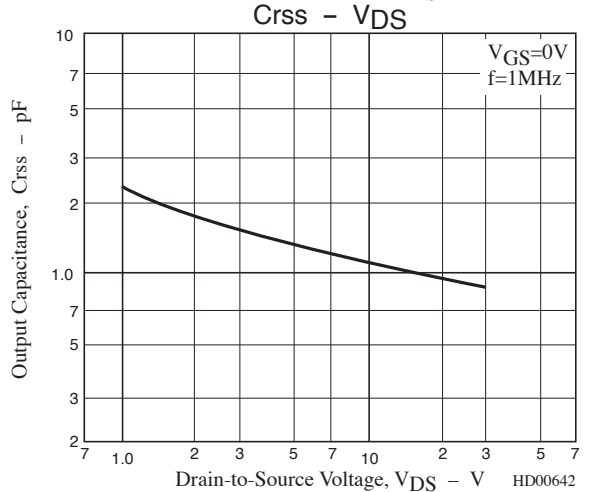
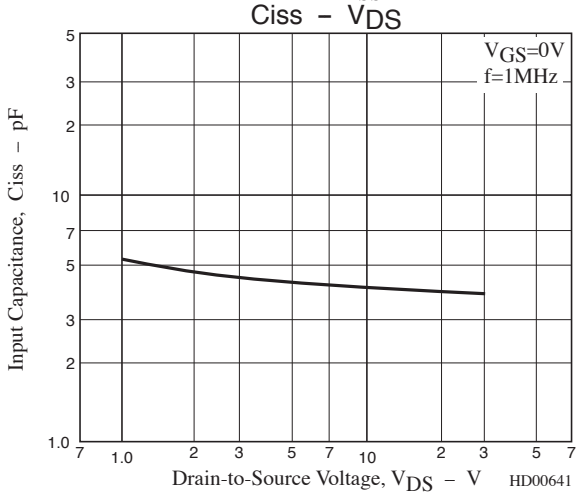
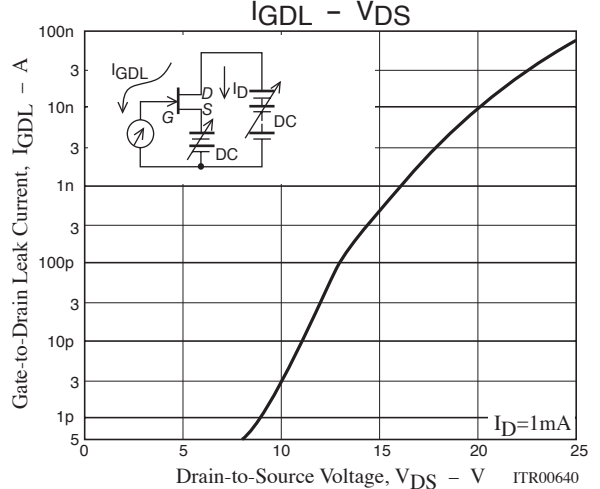
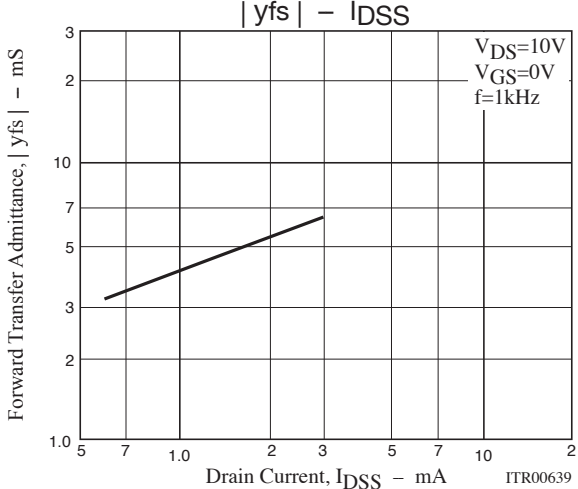
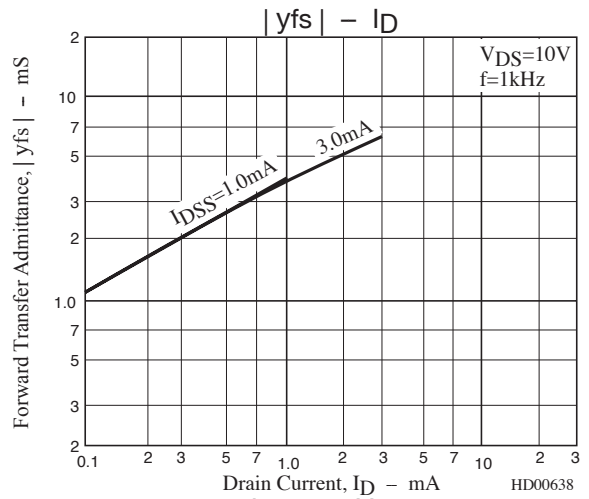
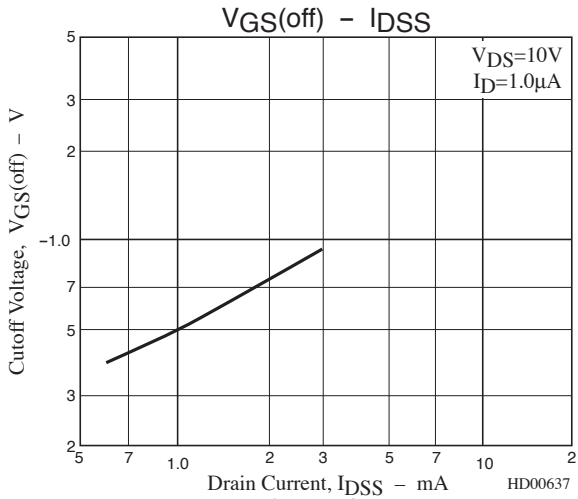
\* : The 2SK3666 is classified by IDSS as follows : (unit : mA)

| Rank | 2          | 3          |
|------|------------|------------|
| IDSS | 0.6 to 1.5 | 1.2 to 3.0 |

Ordering Information

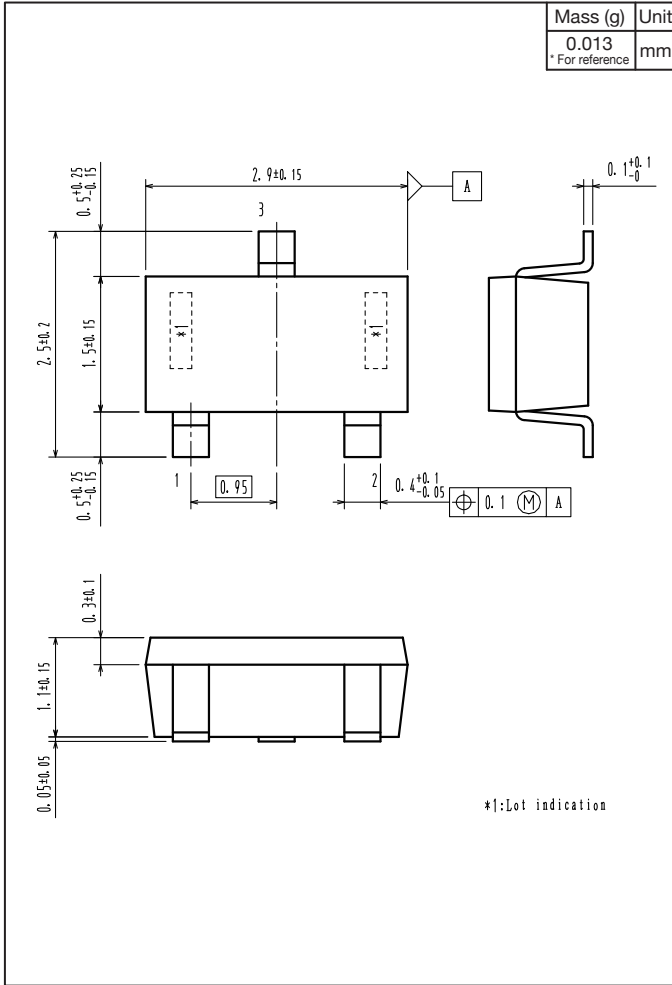
| Device         | Package | Shipping       | memo    |
|----------------|---------|----------------|---------|
| 2SK3666-2-TB-E | CP      | 3,000pcs./reel | Pb Free |
| 2SK3666-3-TB-E | CP      | 3,000pcs./reel |         |



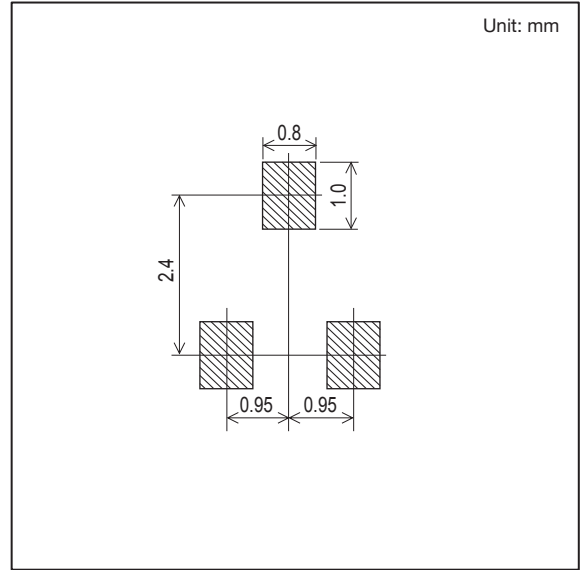


Outline Drawing

2SK3666-2-TB-E, 2SK3666-3-TB-E





Land Pattern Example



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