



CPH3910

N-Channel JFET 25V, 20 to 40mA, 40mS, CPH3

ON Semiconductor®
<http://onsemi.com>

Applications

- For AM tuner RF amplification
- Low noise amplifier

Features

- V_{GDS} : -25V max.
- $|y_{fs}|$: 40mS typ.
- C_{iss} : 6.0pF typ.
- NF: 2.1dB typ.

Specifications

Absolute Maximum Ratings at $T_a=25^\circ\text{C}$

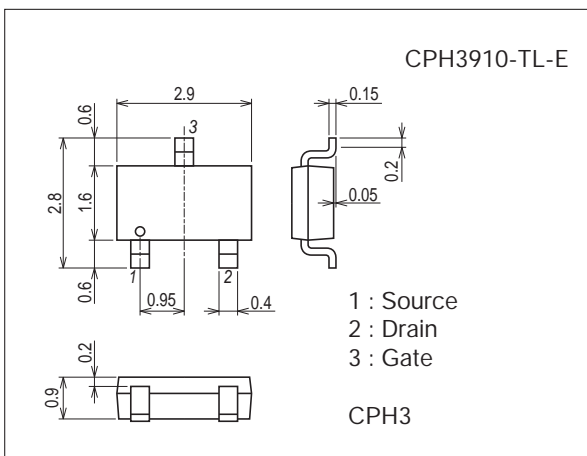
| Parameter | Symbol | Conditions | Ratings | Unit |
|-----------------------------|-----------|------------|-------------|------------------|
| Drain-to-Source Voltage | V_{DSX} | | 25 | V |
| Gate-to-Drain Voltage | V_{GDS} | | -25 | V |
| Gate Current | I_G | | 10 | mA |
| Drain Current | I_D | | 50 | mA |
| Allowable Power Dissipation | P_D | | 400 | mW |
| Junction Temperature | T_j | | 150 | $^\circ\text{C}$ |
| Storage Temperature | T_{stg} | | -55 to +150 | $^\circ\text{C}$ |

Stresses exceeding Maximum Ratings may damage the device. Maximum Ratings are stress ratings only. Functional operation above the Recommended Operating Conditions is not implied. Extended exposure to stresses above the Recommended Operating Conditions may affect device reliability.

Package Dimensions

unit : mm (typ)

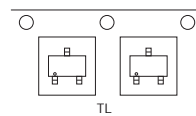
7015A-007



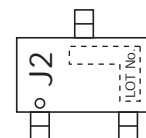
Product & Package Information

- Package : CPH3
- JEITA, JEDEC : SC-59, TO-236, SOT-23
- Minimum Packing Quantity : 3,000 pcs./reel

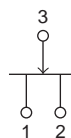
Packing Type: TL



Marking



Electrical Connection



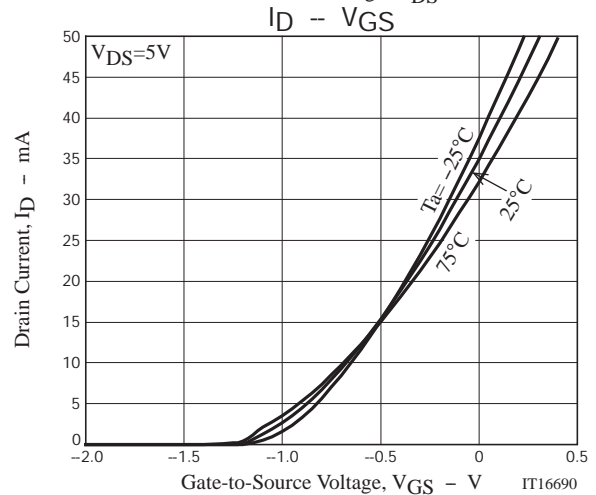
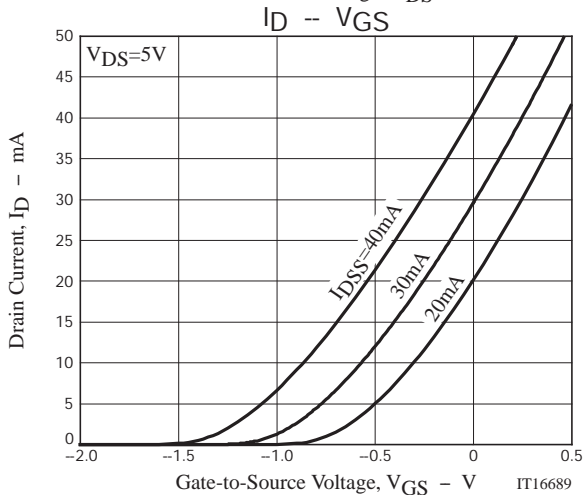
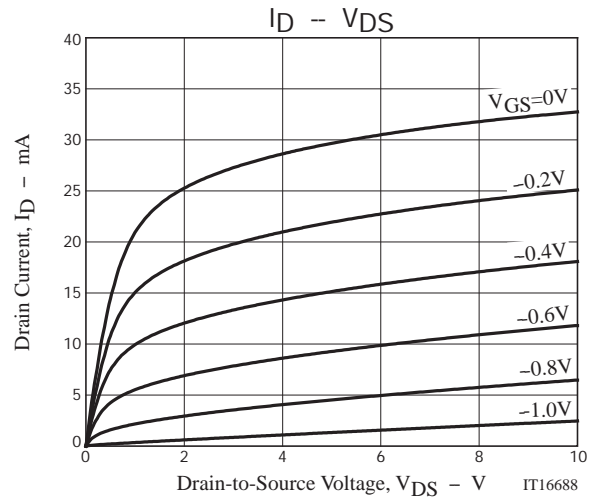
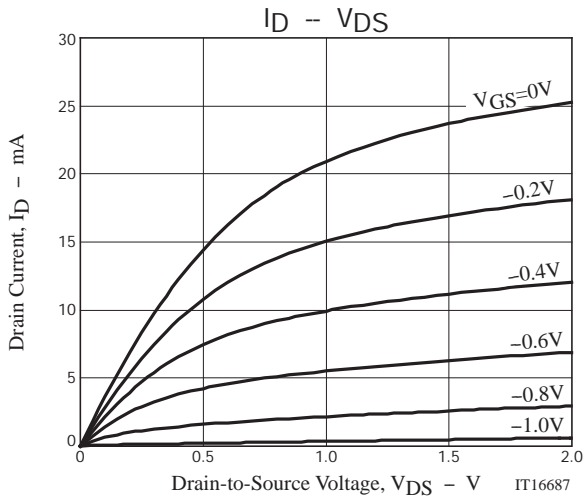
CPH3910

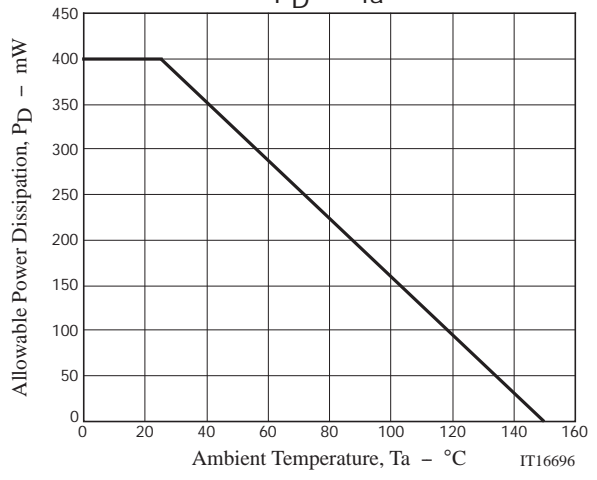
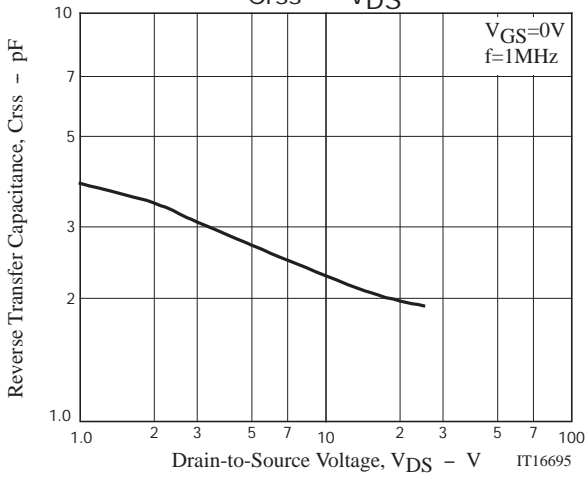
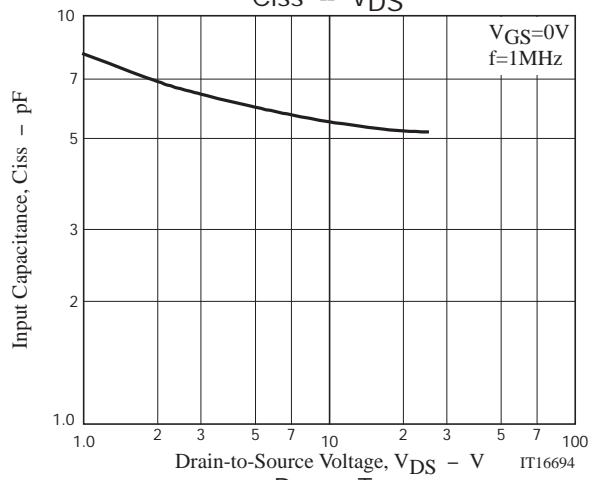
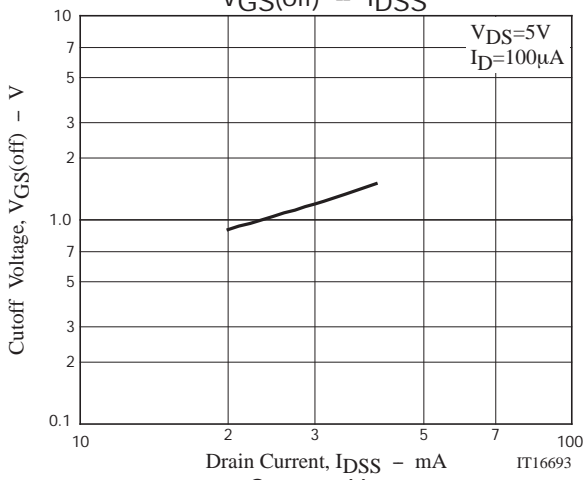
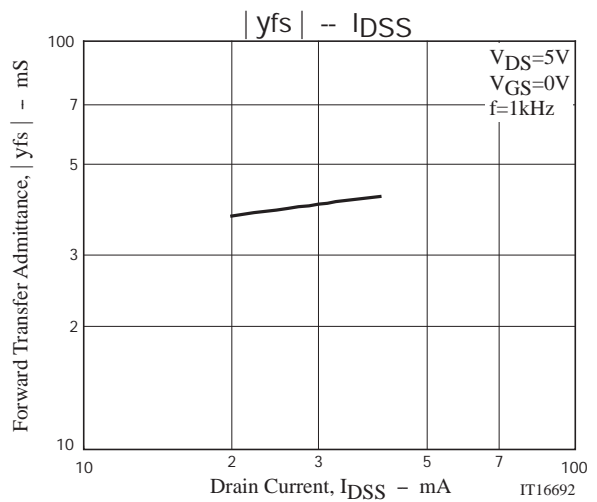
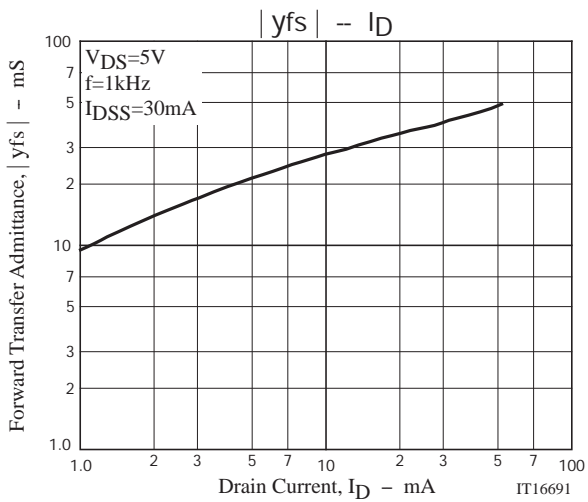
Electrical Characteristics at Ta=25°C

| Parameter | Symbol | Conditions | Ratings | | | Unit |
|---------------------------------|----------|--------------------------|---------|------|------|------|
| | | | min | typ | max | |
| Gate-to-Drain Breakdown Voltage | V(BR)GDS | IG=-10μA, VDS=0V | -25 | | | V |
| Gate Cutoff Current | IGSS | VGS=-10V, VDS=0V | | | -1.0 | nA |
| Cutoff Voltage | VGS(off) | VDS=5V, ID=100μA | -0.6 | -1.2 | -1.8 | V |
| Drain Current | IDSS | VDS=5V, VGS=0V | 20 | | 40 | mA |
| Forward Transfer Admittance | yfs | VDS=5V, VGS=0V, f=1kHz | 30 | 40 | | mS |
| Input Capacitance | Ciss | VDS=5V, VGS=0V, f=1MHz | | 6.0 | | pF |
| Reverse Transfer Capacitance | Crss | VDS=5V, VGS=0V, f=1MHz | | 2.3 | | pF |
| Noise Figure | NF | VDS=5V, VGS=0V, f=100MHz | | 2.1 | 2.8 | dB |

Ordering Information

| Device | Package | Shipping | memo |
|--------------|---------|----------------|---------|
| CPH3910-TL-E | CPH3 | 3,000pcs./reel | Pb Free |





Embossed Taping Specification

CPH3910-TL-E

1. Packing Format

| Package Name | Carrier Tape Type | Maximum Number of devices contained (pcs) | | | Packing format | |
|--------------|-------------------|-------------------------------------------|-----------|-----------|-------------------------------------------------------------|--------------------------------------------------------------------|
| | | Reel | Inner box | Outer box | Inner BOX (C-1) | Outer BOX (A-7) |
| CPH3 | CPH3 | 3,000 | 15,000 | 90,000 | 5 reels contained Dimensions:mm (external) 183×72×185 | 6 inner boxes contained Dimensions:mm (external) 440×195×210 |

Reel label, Inner box label
(unit:mm)

Outer box label

It is a label at the time of factory shipments.
The form of a label may change in physical distribution process.

Packing method



Reel label



NOTE (1)

The LEAD FREE * description shows that the surface treatment of the terminal is lead free.

| Label | JEITA Phase |
|-------------|----------------|
| LEAD FREE 3 | JEITA Phase 3A |
| LEAD FREE 4 | JEITA Phase 3 |

2. Taping configuration

2-1. Carrier tape size (unit:mm)



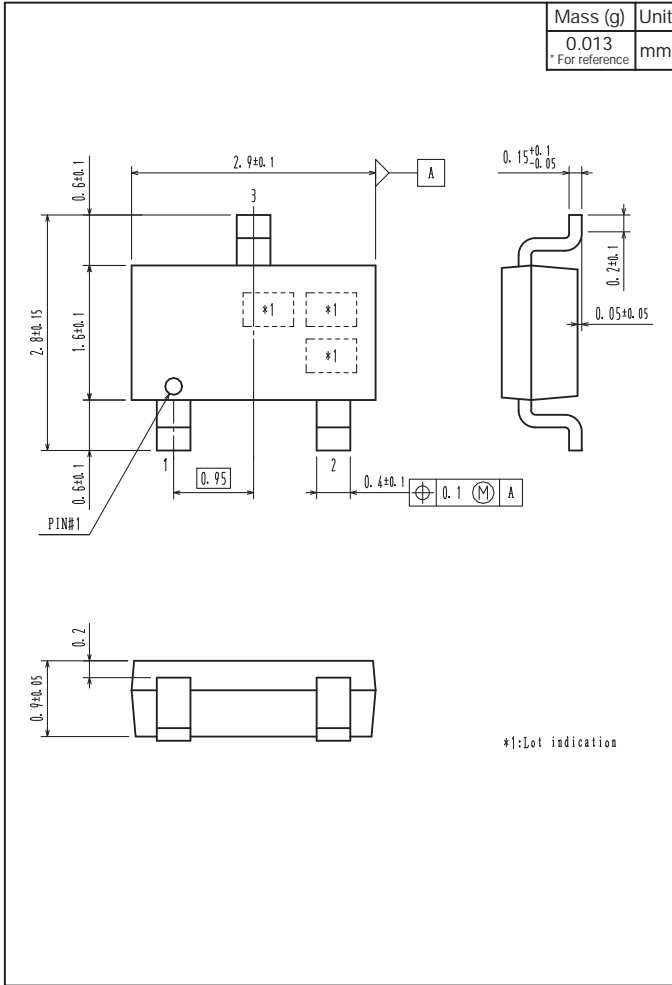
2-2. Device placement direction



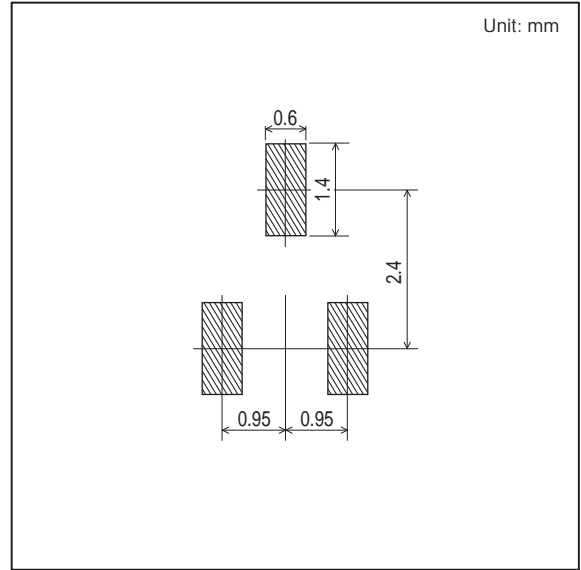
Those with one electrode terminal on the feed hole side.....TL

CPH3910

Outline Drawing CPH3910-TL-E



Land Pattern Example



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