



SANYO Semiconductors

DATA SHEET

An ON Semiconductor Company

N-Channel Silicon MOSFET

CPH6904 — High-Frequency Low-Noise Amplifier Applications

Features

- Composite type with 2 J-FET contained in a CPH6 package currently in use, improving the mounting efficiency greatly
- The CPH6904 is formed with two chips, being equivalent to the CPH3910, placed in one package

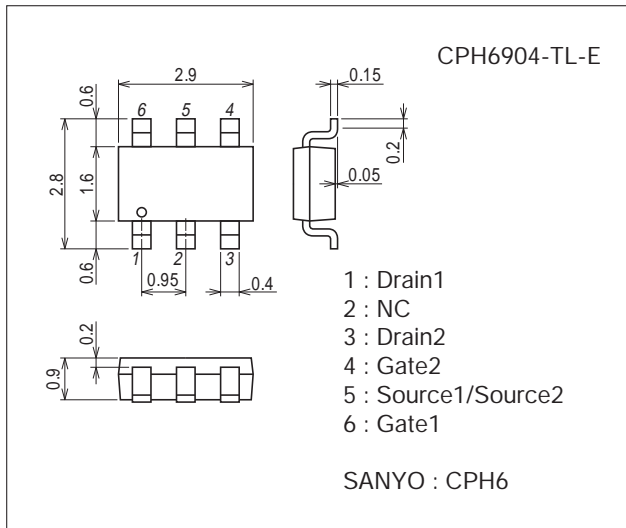
Specifications

Absolute Maximum Ratings at Ta=25°C

| Parameter | Symbol | Conditions | Ratings | Unit |
|-----------------------------|------------------|------------|-------------|------|
| Drain-to-Source Voltage | V _{DSX} | | 25 | V |
| Gate-to-Source Voltage | V _{GDS} | | -25 | V |
| Gate Current | I _G | | 10 | mA |
| Drain Current | I _D | | 50 | mA |
| Allowable Power Dissipation | P _D | 1unit | 400 | mW |
| Total Power Dissipation | P _T | | 700 | mW |
| Channel Temperature | T _{ch} | | 150 | °C |
| Storage Temperature | T _{stg} | | -55 to +150 | °C |

Package Dimensions

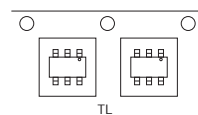
unit : mm (typ)
7018A-015



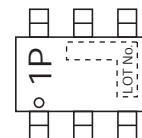
Product & Package Information

- Package : CPH6
- JEITA, JEDEC : SC-74, SOT-26, SOT-457
- Minimum Packing Quantity : 3,000 pcs./reel

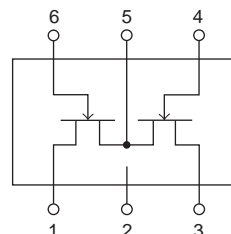
Packing Type: TL



Marking



Electrical Connection



CPH6904

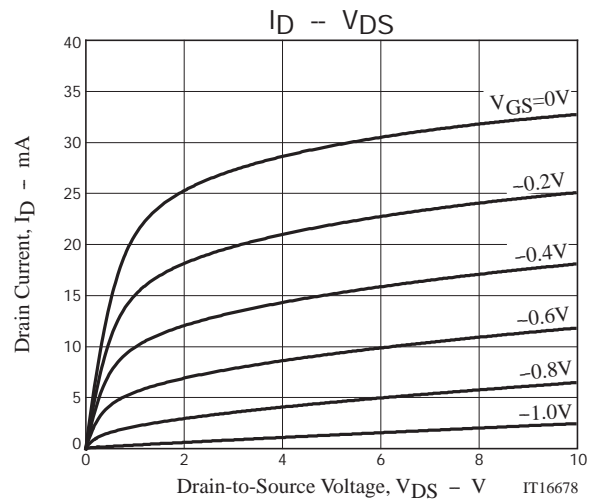
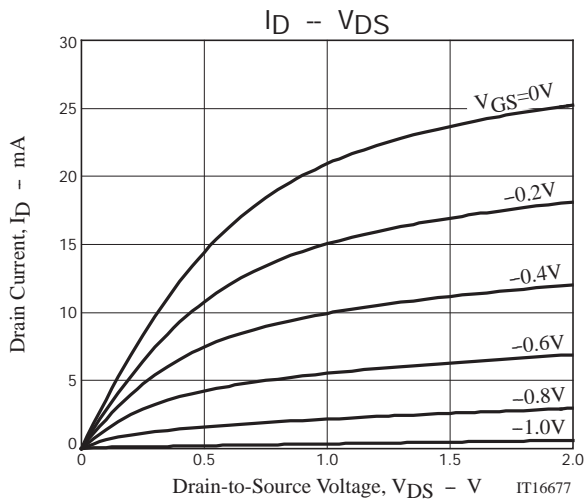
Electrical Characteristics at Ta=25°C

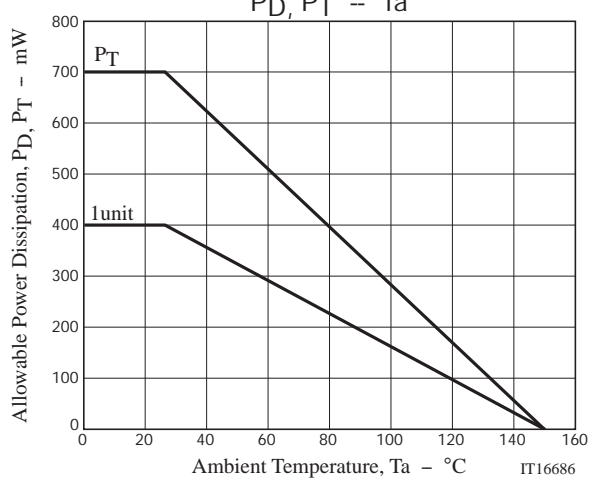
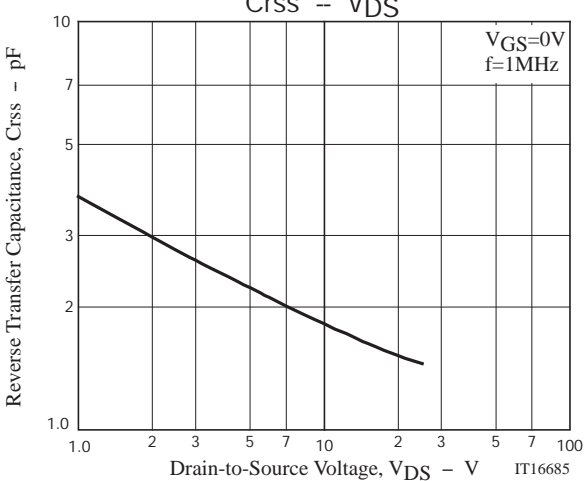
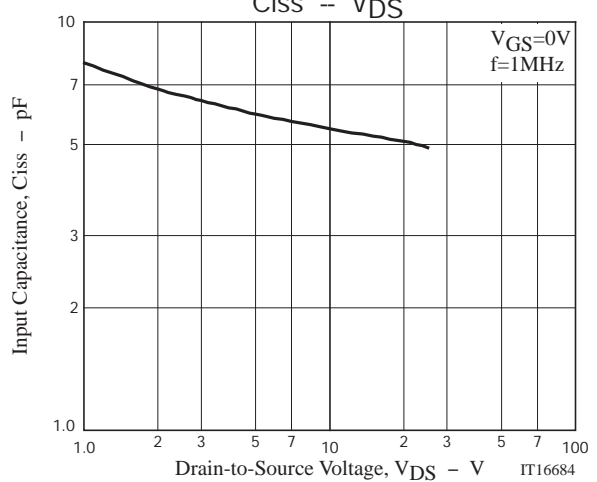
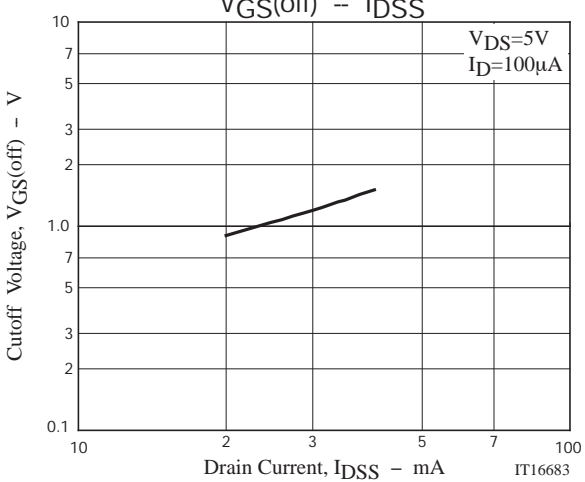
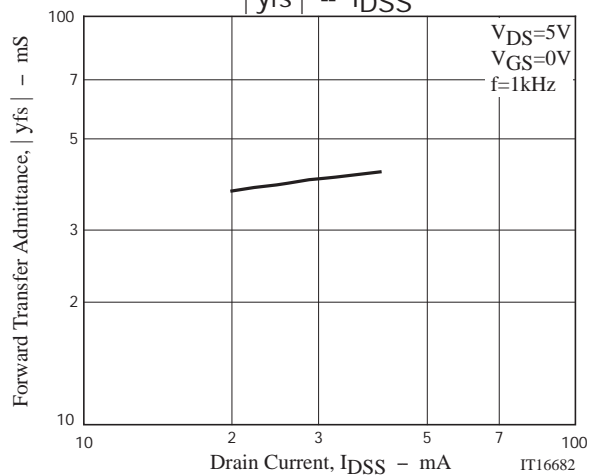
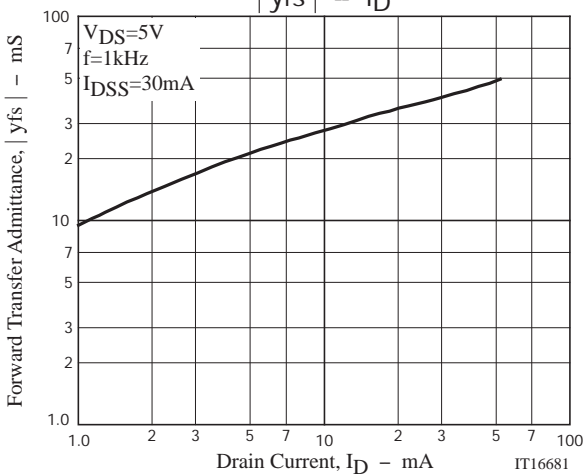
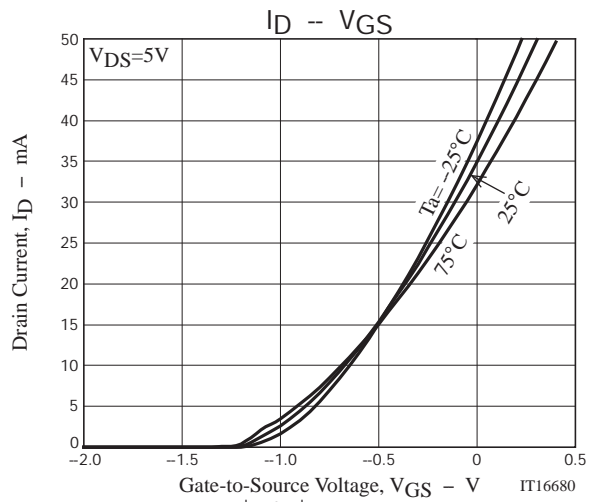
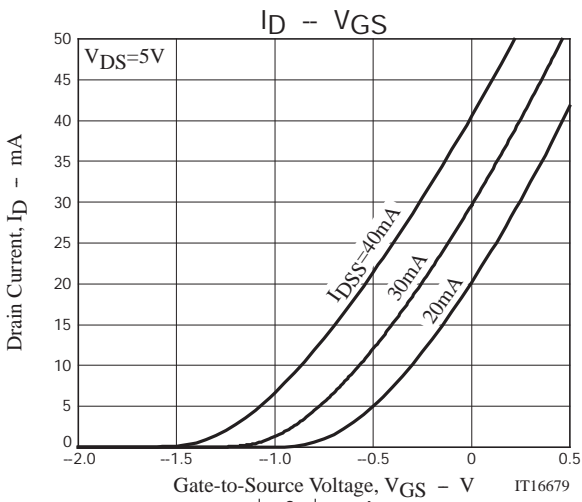
| Parameter | Symbol | Conditions | Ratings | | | Unit |
|---------------------------------|----------------------|--|---------|------|------|------|
| | | | min | typ | max | |
| Gate-to-Drain Breakdown Voltage | V(BR)GDS | I _G =-10μA, V _{DS} =0V | -25 | | | V |
| Gate-to-Source Leakage Current | I _{GSS} | V _{GS} =-10V, V _{DS} =0V | | | -1.0 | nA |
| Cutoff Voltage | V _{GS(off)} | V _{DS} =5V, I _D =100μA | -0.6 | -1.2 | -1.8 | V |
| Drain Current | I _{DSS} | V _{DS} =5V, V _{GS} =0V | 20.0 | | 40.0 | mA |
| Forward Transfer Admittance | y _{fs} | V _{DS} =5V, V _{GS} =0V, f=1kHz | 30 | 40 | | mS |
| Input Capacitance | C _{iss} | V _{DS} =5V, V _{GS} =0V, f=1MHz | | 6.0 | | pF |
| Reverse Transfer Capacitance | C _{rss} | | | 2.3 | | pF |
| Noise Figure | NF | V _{DS} =5V, V _{GS} =0V, f=100MHz | | 2.1 | 2.8 | dB |

The specifications shown above are for each individual J-FET.

Ordering Information

| Device | Package | Shipping | memo |
|--------------|---------|----------------|---------|
| CPH6904-TL-E | CPH6 | 3,000pcs./reel | Pb Free |





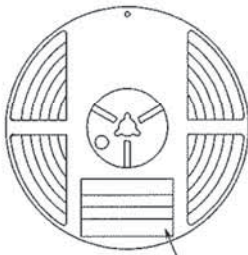
Embossed Taping Specification

CPH6904-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) |
| CPH6 | CPH6 | 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 |

Packing method

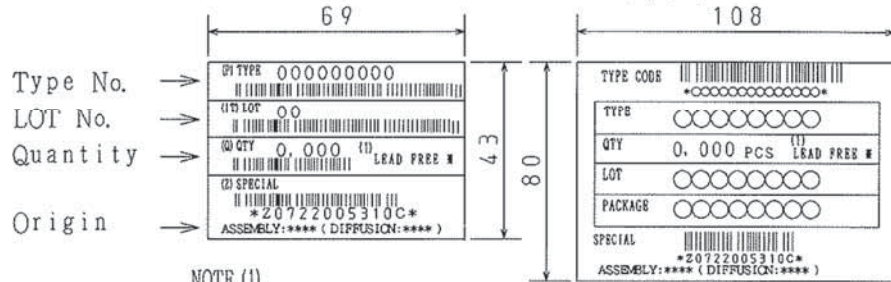


Reel label

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.



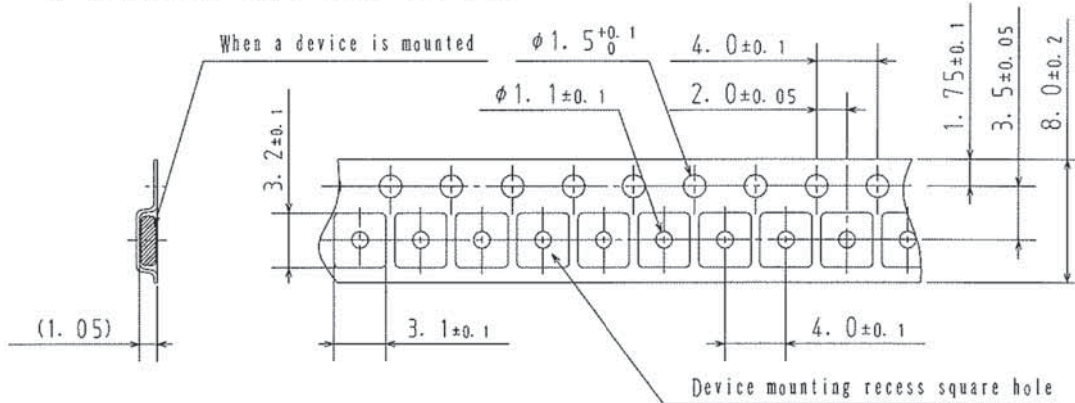
NOTE (1)

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

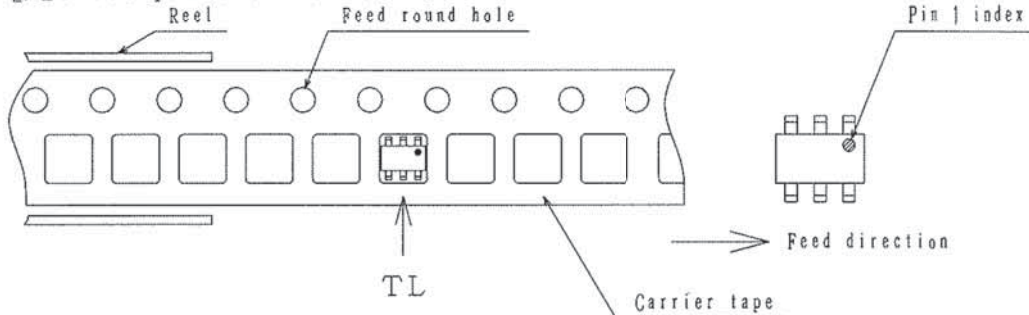
| Label | JEITA Phase |
|-------------|----------------|
| LEAD FREE 3 | JEITA Phase 3A |
| LEAD FREE 4 | JEITA Phase 3 |

2. Taping configuration

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



2-2. Device placement direction



Those with pin 1 index on the feed hole side.....TL

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JONHON

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