



SANYO Semiconductors

DATA SHEET

An ON Semiconductor Company

MCH5908 — N-Channel Silicon Junction FET High-Frequency Amplifier, AM Amplifier, Low-Frequency Amplifier Applications

Features

- Composite type with 2 J-FET contained in a MCPH5 package currently in use, improving the mounting efficiency greatly
- The MCH5908 is formed with two chips, being equivalent to the 2SK3557, placed in one package

Specifications

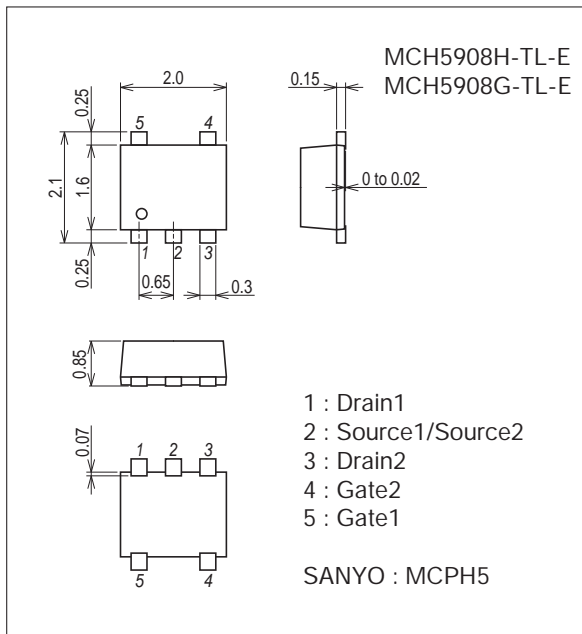
Absolute Maximum Ratings at Ta=25°C

| Parameter | Symbol | Conditions | Ratings | Unit |
|-----------------------------|------------------|------------|-------------|------|
| Drain-to-Source Voltage | V _{DSX} | | 15 | V |
| Gate-to-Drain Voltage | V _{GD} | | -15 | V |
| Gate Current | I _G | | 10 | mA |
| Drain Current | I _D | | 50 | mA |
| Allowable Power Dissipation | P _D | 1 unit | 200 | mW |
| Total Power Dissipation | P _T | | 300 | mW |
| Junction Temperature | T _j | | 150 | °C |
| Storage Temperature | T _{stg} | | -55 to +150 | °C |

Package Dimensions

unit : mm (typ)

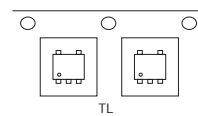
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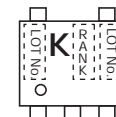
Product & Package Information

- Package : MCPH5
- JEITA, JEDEC : SC-88A, SC-70-5, SOT-353
- Minimum Packing Quantity : 3,000 pcs./reel

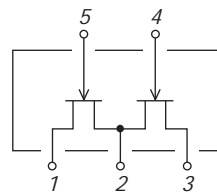
Packing Type : TL



Marking



Electrical Connection



MCH5908

Electrical Characteristics at Ta=25°C

| Parameter | Symbol | Conditions | Ratings | | | Unit |
|---------------------------------|----------------------|---|---------|------|-------|------|
| | | | min | typ | max | |
| Gate-to-Drain Breakdown Voltage | V(BR)GD _S | I _G =-10μA, V _{DS} =0V | -15 | | | 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 | -0.3 | -0.7 | -1.5 | V |
| Zero-Gate Voltage Drain Current | I _{DSS} | V _{DS} =5V, V _{GS} =0V | 10.0* | | 32.0* | mA |
| Forward Transfer Admittance | y _{fs} | V _{DS} =5V, V _{GS} =0V, f=1kHz | 24 | 35 | | mS |
| Input Capacitance | C _{iss} | V _{DS} =5V, V _{GS} =0V, f=1MHz | | 10.5 | | pF |
| Reverse Transfer Capacitance | C _{rss} | | | 3.5 | | pF |
| Noise Figure | NF | V _{DS} =5V, R _g =1kΩ, I _D =1mA, f=1kHz | | 1.0 | | dB |

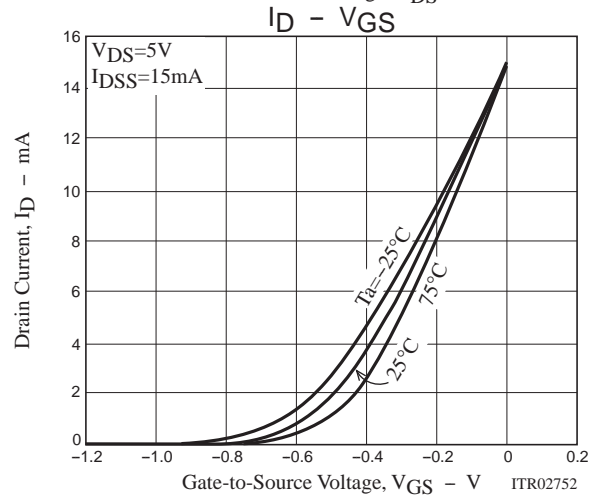
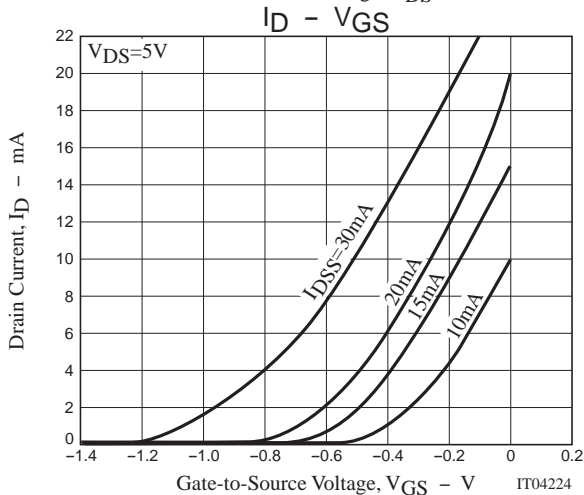
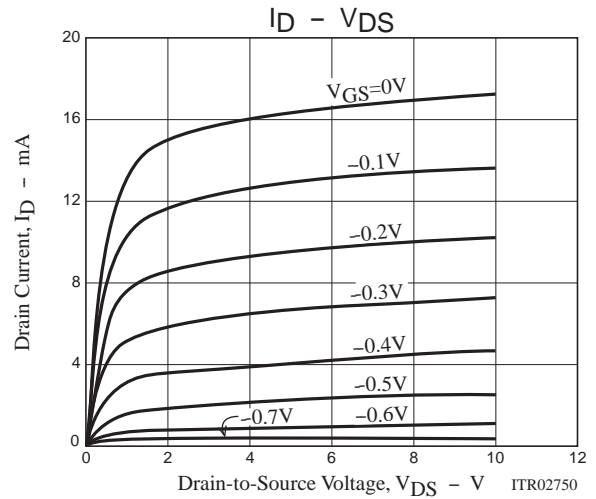
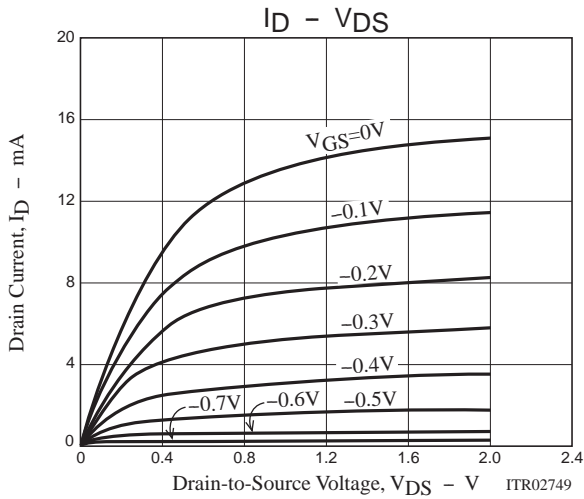
The specifications shown above are for each individual J-FET.

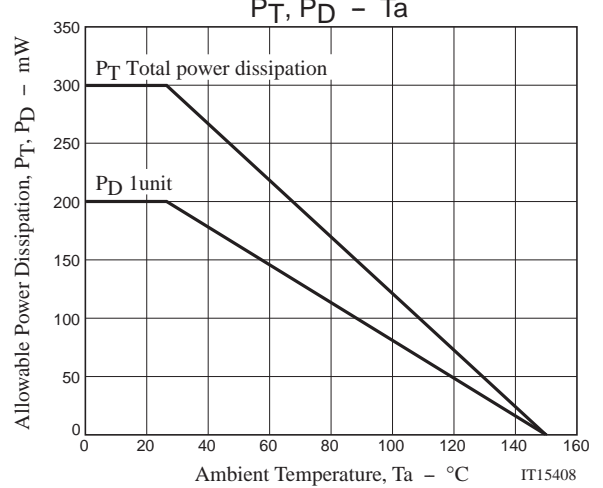
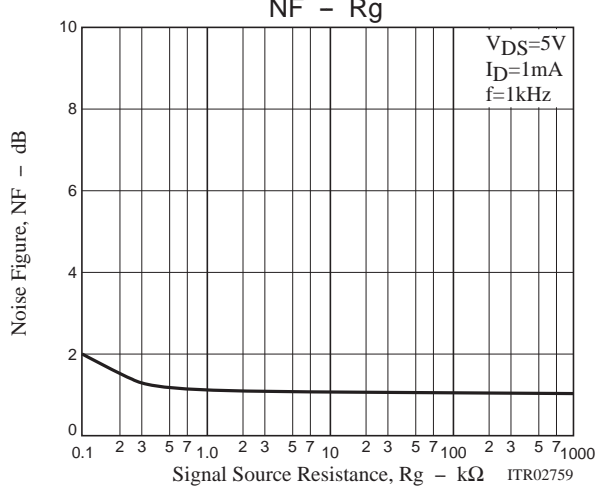
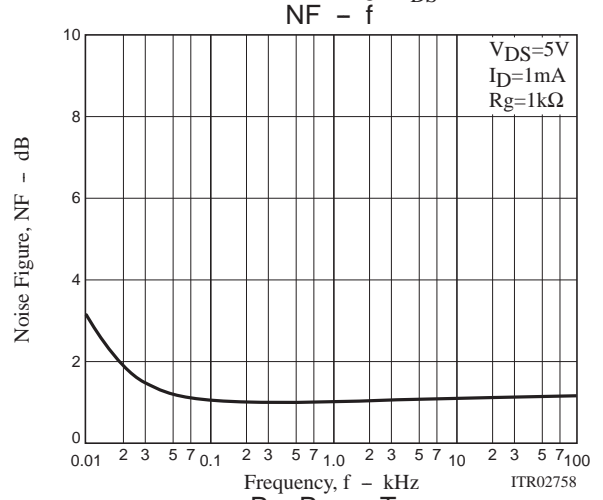
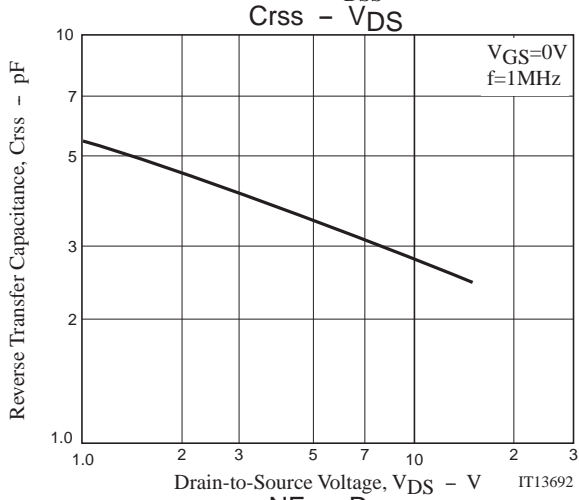
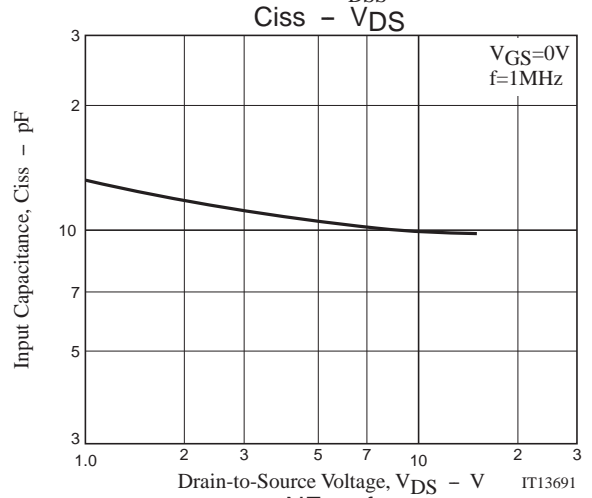
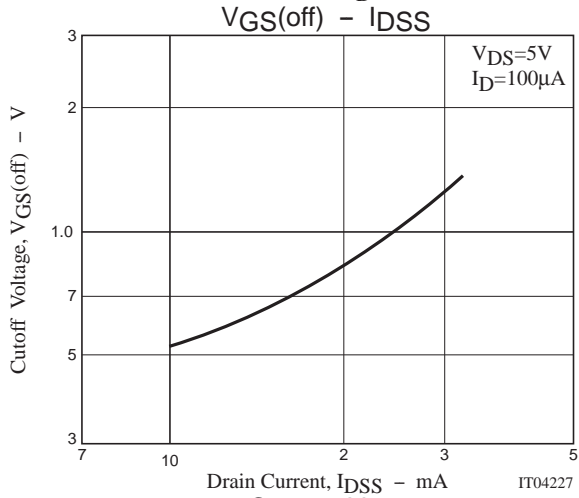
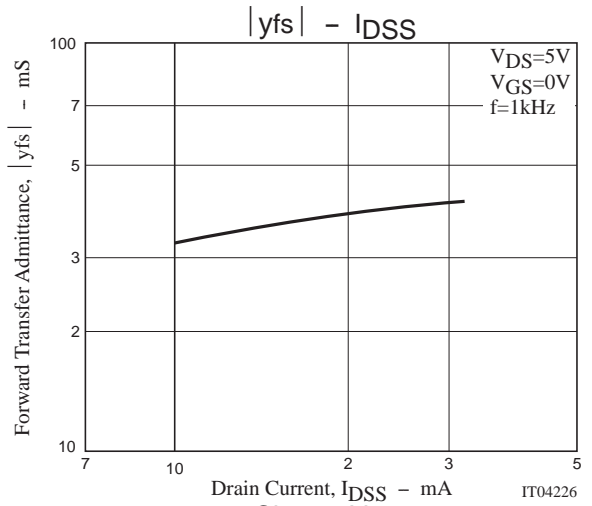
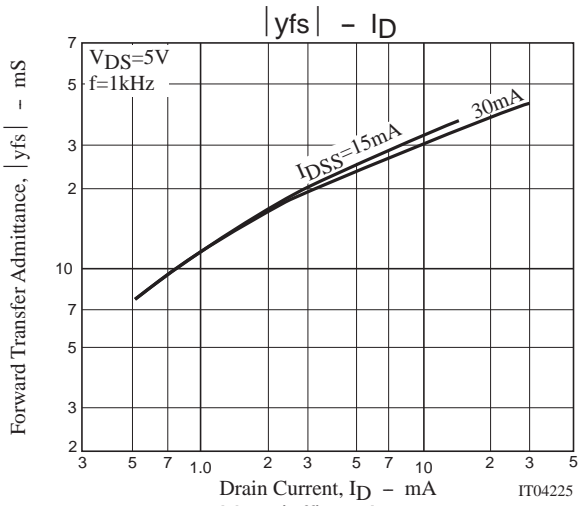
* : The MCH5908 is classified by I_{DSS} as follows (unit : mA).

| Rank | G | H |
|------------------|----------|----------|
| I _{DSS} | 10 to 20 | 16 to 32 |

Ordering Information

| Device | Package | Shipping | memo |
|---------------|---------|----------------|---------|
| MCH5908H-TL-E | MCPH5 | 3,000pcs./reel | Pb Free |
| MCH5908G-TL-E | MCPH5 | 3,000pcs./reel | |





Taping Specification

MCH5908H-TL-E, MCH5908G-TL-E

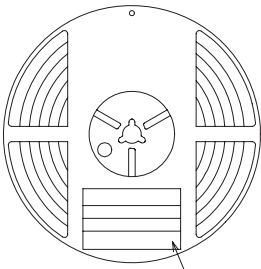
1. Packing Format

| 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) |
| MCPH5 | MCP4 | 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)

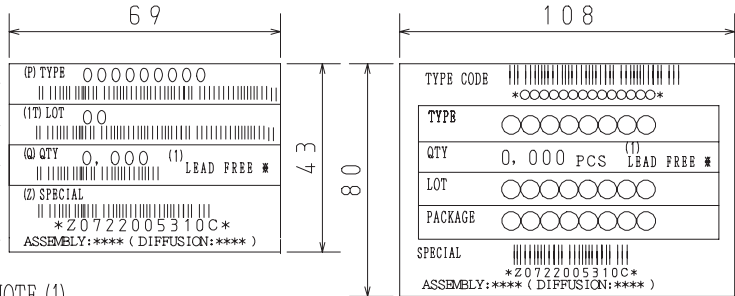
Outer box label
It is a label at the time of factory shipments.
The form of a label may change in physical distribution process.

Packing method



Reel label

Type No.
LOT No.
Quantity
Origin



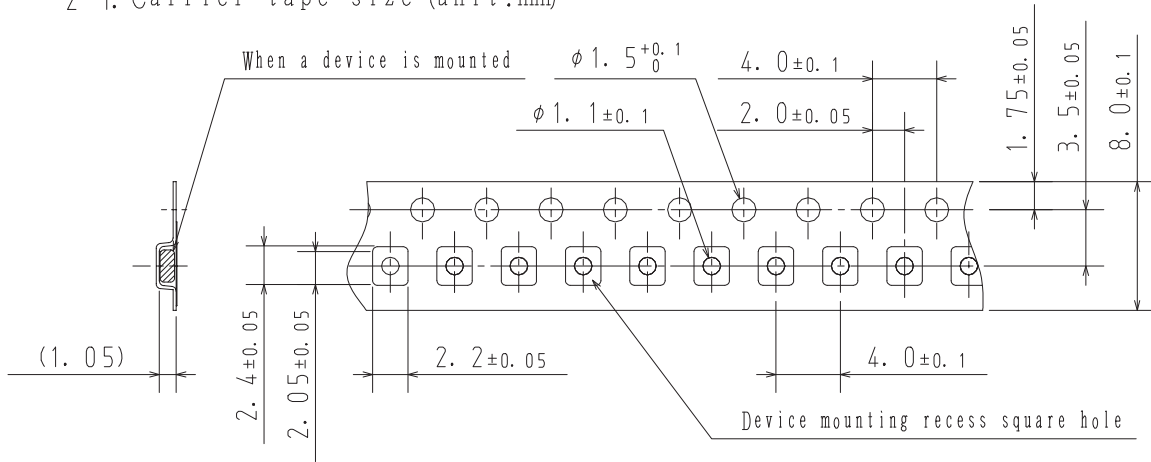
NOTE (1)

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

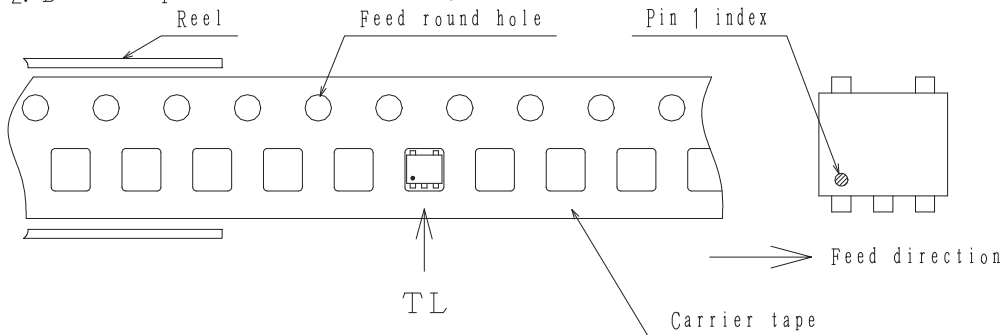
| Label | JEITA Phase |
|-------------|----------------|
| LEAD FREE 3 | JEITA Phase 3A |
| LEAD FREE 4 | JEITA Phase 3 |

2. Taping configuration

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



2-2. Device placement direction

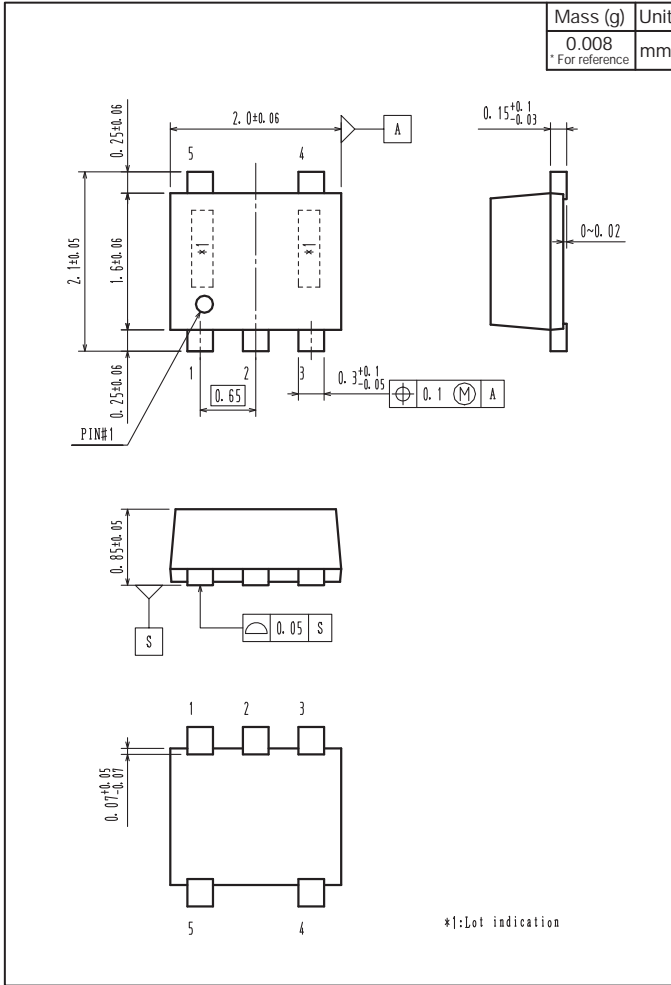


Those with two electrode terminal on the feed hole side.....TL

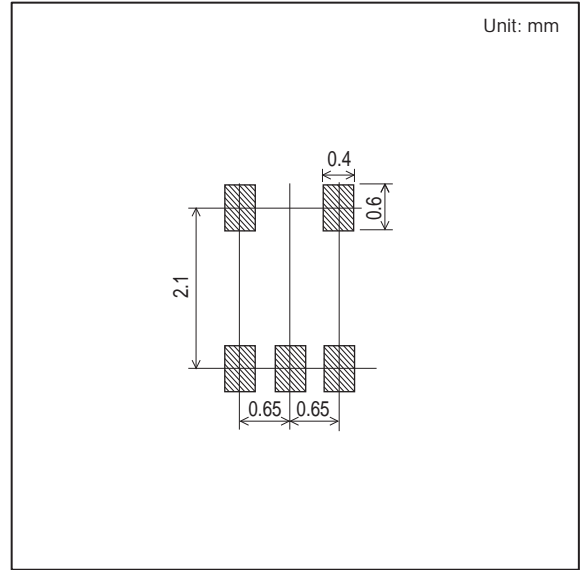
MCH5908

Outline Drawing

MCH5908H-TL-E, MCH5908G-TL-E



Land Pattern Example



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