



# 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  $T_a=25^\circ\text{C}$** 

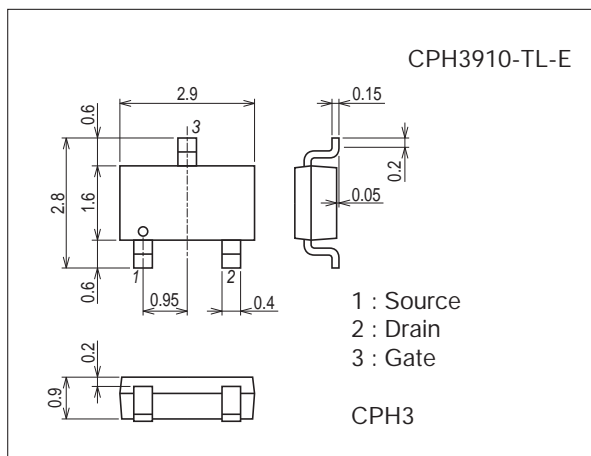
Parameter	Symbol	Conditions	Ratings	Unit
Drain-to-Source Voltage	$V_{DSX}$		25	V
Gate-to-Drain Voltage	$V_{GDS}$		-25	V
Gate Current	$I_G$		10	mA
Drain Current	$I_D$		50	mA
Allowable Power Dissipation	$P_D$		400	mW
Junction Temperature	$T_j$		150	$^\circ\text{C}$
Storage Temperature	$T_{stg}$		-55 to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

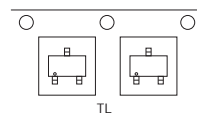
7015A-007



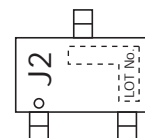
### Product & Package Information

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

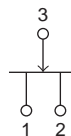
### Packing Type: TL



### Marking



### Electrical Connection



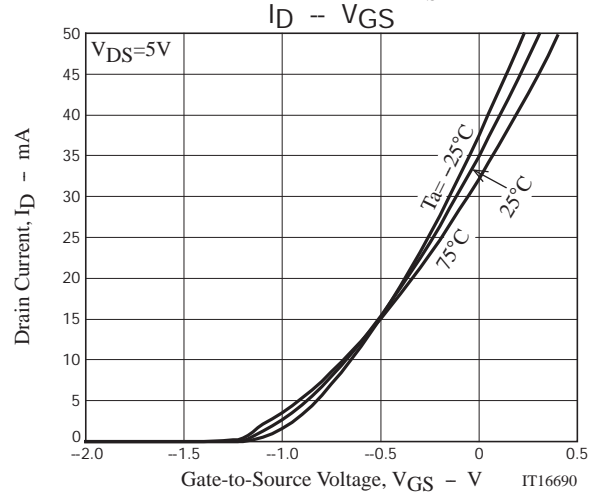
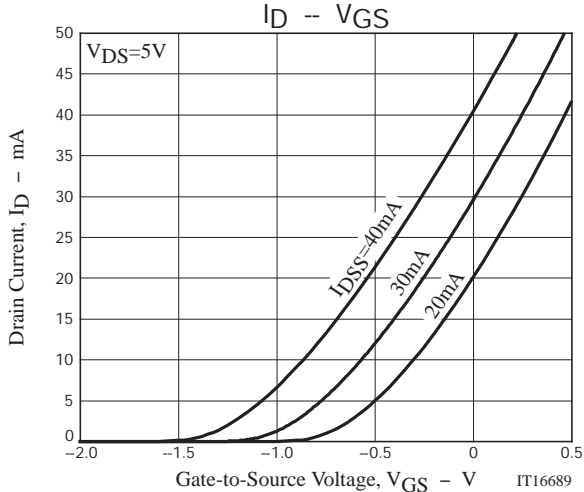
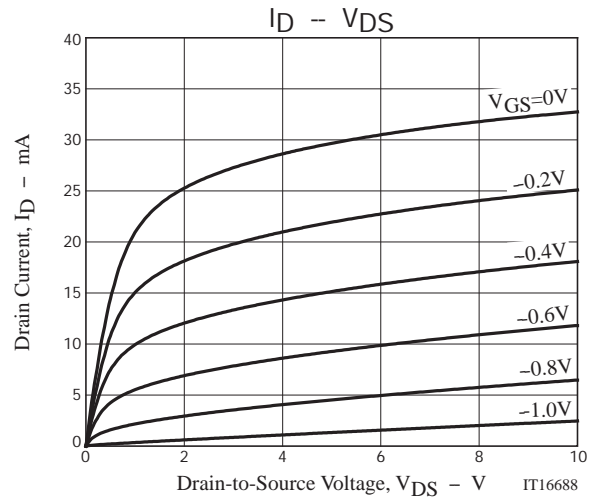
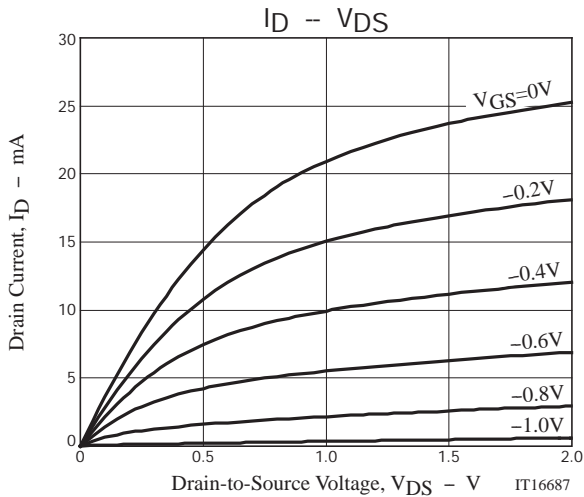
# CPH3910

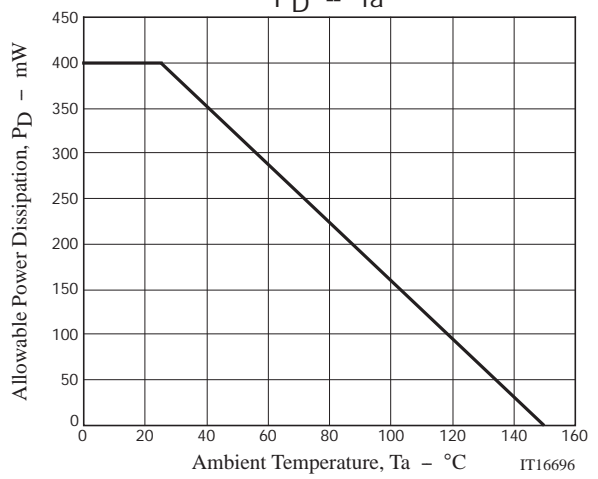
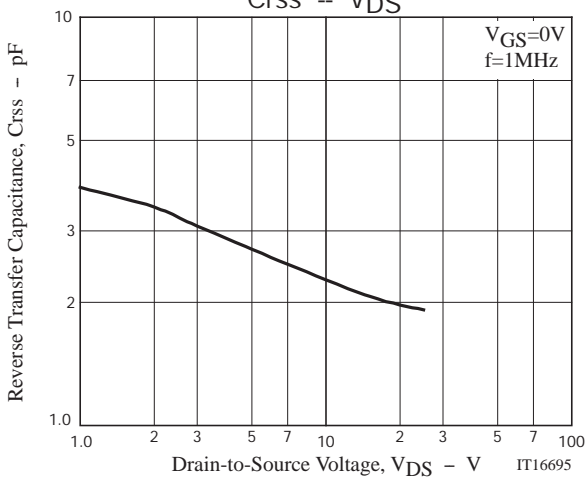
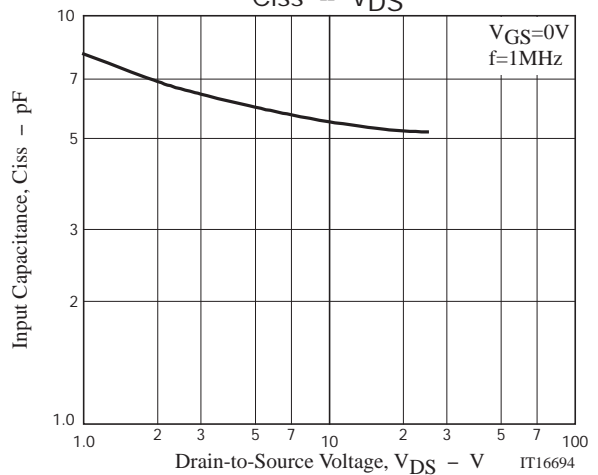
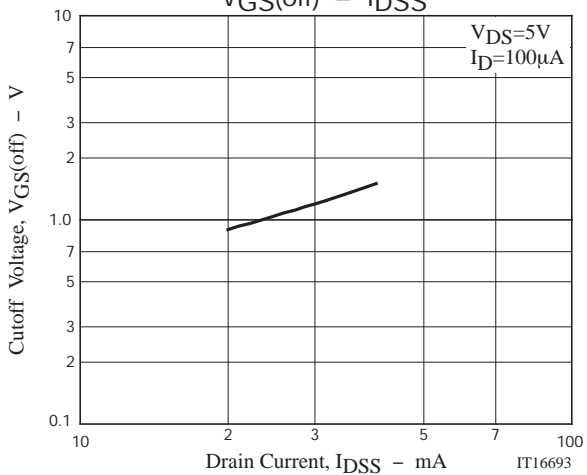
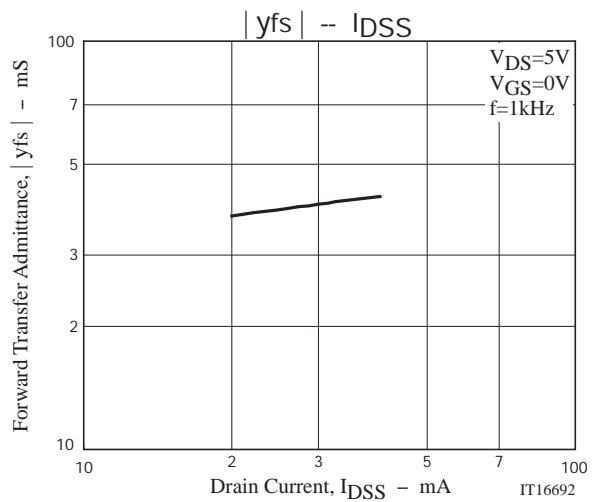
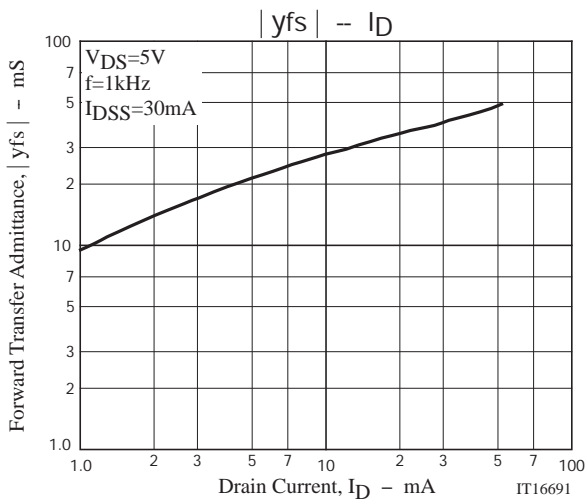
## Electrical Characteristics at $T_a=25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Gate-to-Drain Breakdown Voltage	$V_{(BR)GDS}$	$I_G=-10\mu\text{A}$ , $V_{DS}=0\text{V}$	-25			V
Gate Cutoff Current	$I_{GSS}$	$V_{GS}=-10\text{V}$ , $V_{DS}=0\text{V}$			-1.0	nA
Cutoff Voltage	$V_{GS(off)}$	$V_{DS}=5\text{V}$ , $I_D=100\mu\text{A}$	-0.6	-1.2	-1.8	V
Drain Current	$I_{DSS}$	$V_{DS}=5\text{V}$ , $V_{GS}=0\text{V}$	20		40	mA
Forward Transfer Admittance	$ y_{fs} $	$V_{DS}=5\text{V}$ , $V_{GS}=0\text{V}$ , $f=1\text{kHz}$	30	40		mS
Input Capacitance	$C_{iss}$	$V_{DS}=5\text{V}$ , $V_{GS}=0\text{V}$ , $f=1\text{MHz}$		6.0		pF
Reverse Transfer Capacitance	$C_{rss}$	$V_{DS}=5\text{V}$ , $V_{GS}=0\text{V}$ , $f=1\text{MHz}$		2.3		pF
Noise Figure	NF	$V_{DS}=5\text{V}$ , $V_{GS}=0\text{V}$ , $f=100\text{MHz}$		2.1	2.8	dB

## Ordering Information

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





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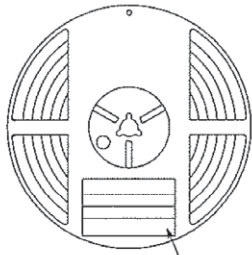
## Embossed Taping Specification

CPH3910-TL-E

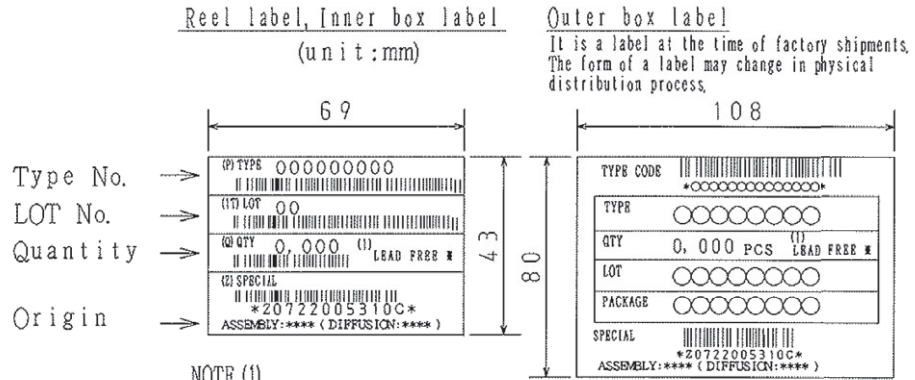
### 1. Packing Format

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

#### Packing method



Reel label



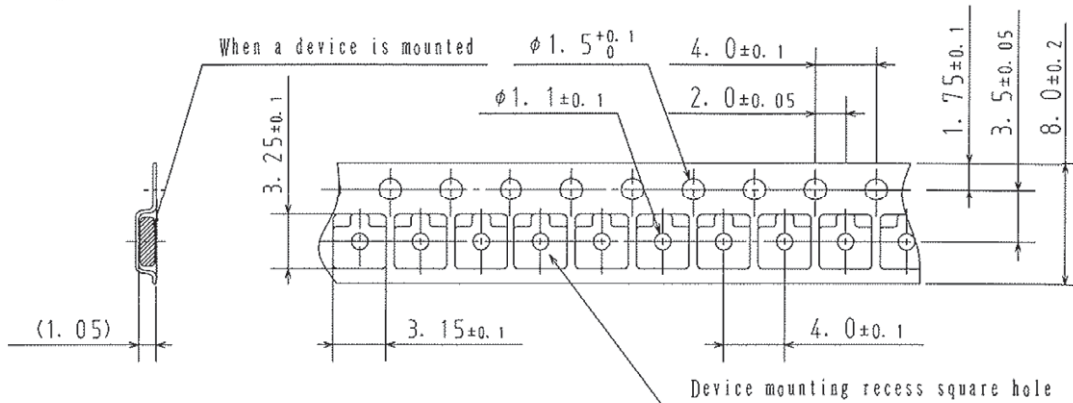
NOTE (1)

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

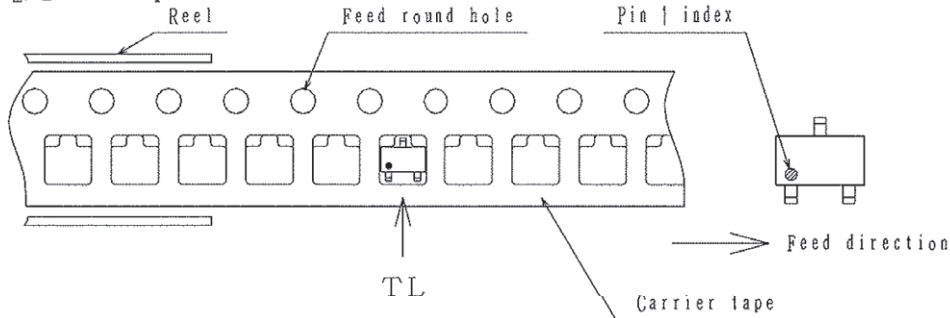
Label	JEITA Phase
LEAD FREE 3	JEITA Phase 3A
LEAD FREE 4	JEITA Phase 3

### 2. Taping configuration

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



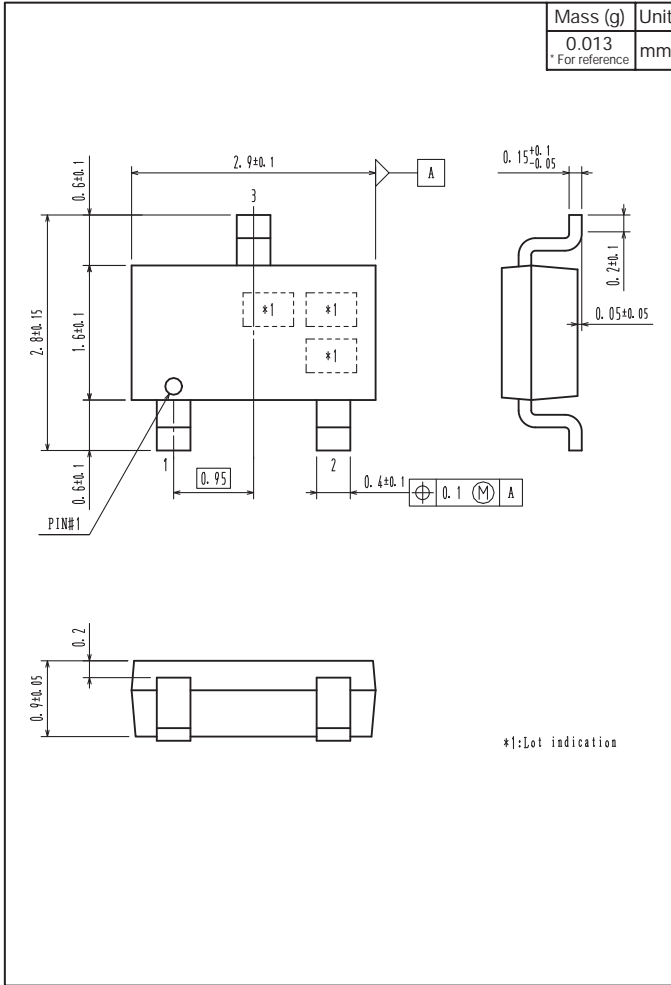
#### 2-2. Device placement direction



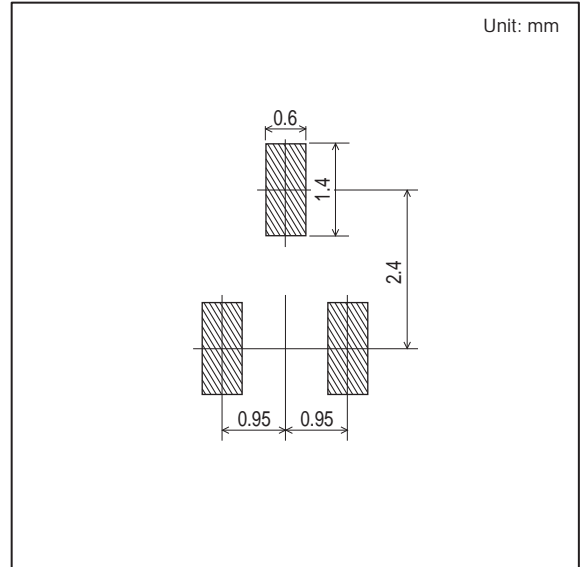
Those with one electrode terminal on the feed hole side.....TL

# CPH3910

## Outline Drawing CPH3910-TL-E



## Land Pattern Example



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