Ordering number : ENA1965A

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.
- | yfs |: 40mS typ.
- Ciss: 6.0pF typ.
- NF: 2.1dB typ.

Specifications

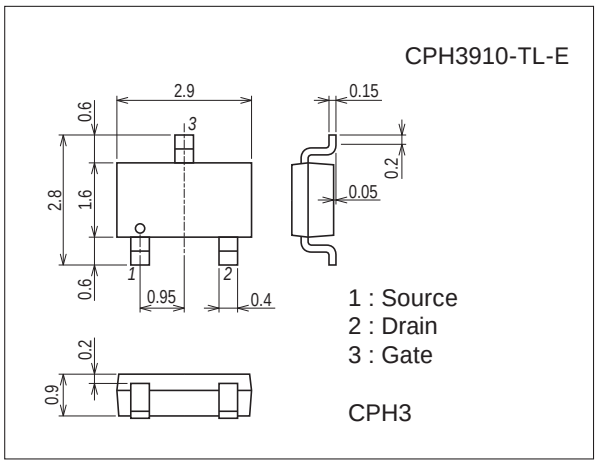
Absolute Maximum Ratings at Ta=25°C

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	Tj		150	°C
Storage Temperature	Tstg		−55 to +150	°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

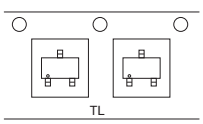
unit : mm (typ)
7015A-007



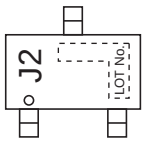
Product & Package Information

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

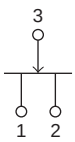
Packing Type: TL



Marking



Electrical Connection

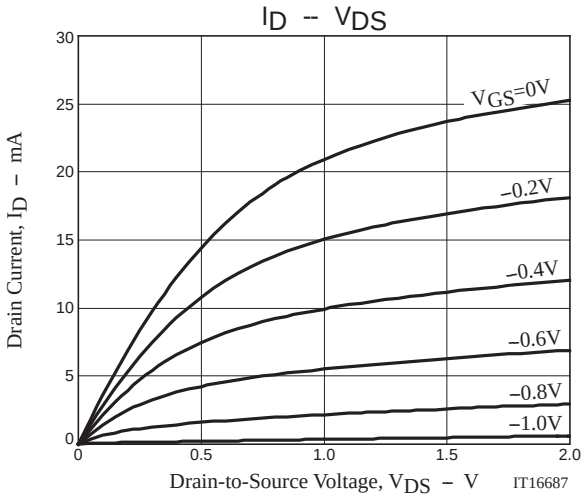


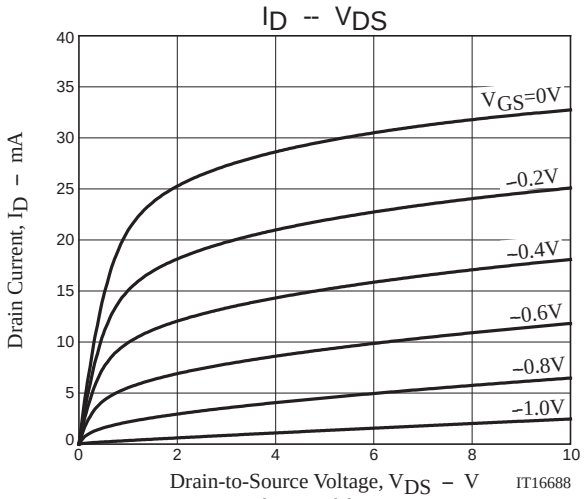
Electrical Characteristics at Ta=25°C

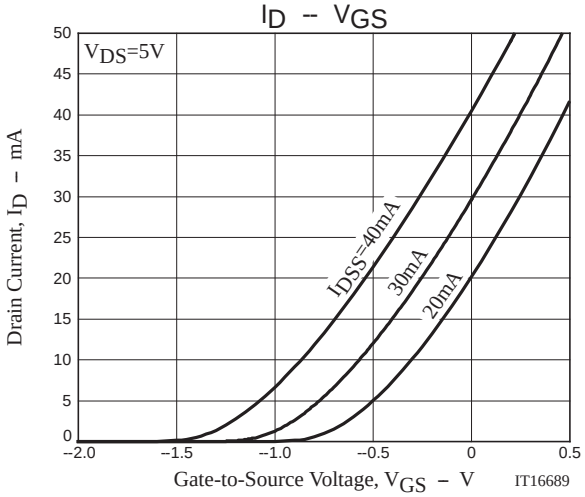
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Gate-to-Drain Breakdown Voltage	$V_{(BR)GDS}$	I_G=−10μA, V_{DS}=0V	−25			V
Gate Cutoff Current	I_{GSS}	V_{GS}=−10V, V_{DS}=0V			−1.0	nA
Cutoff Voltage	V_{GS}(off)	V_{DS}=5V, I_D=100μA	−0.6	−1.2	−1.8	V
Drain Current	I_{DSS}	V_{DS}=5V, V_{GS}=0V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

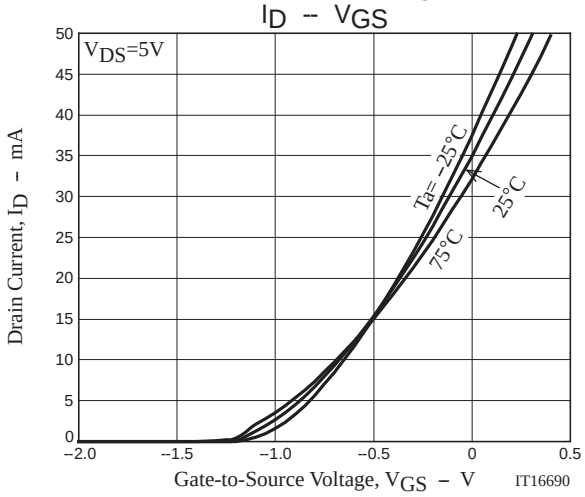
Ordering Information

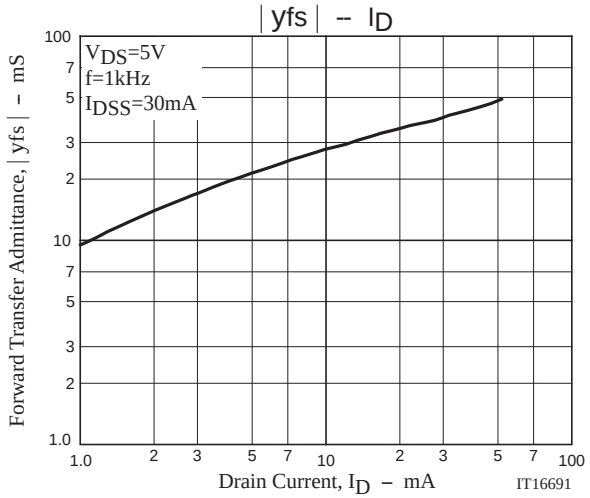
Device	Package	Shipping	memo
CPH3910-TL-E	CPH3	3,000pcs./reel	Pb Free

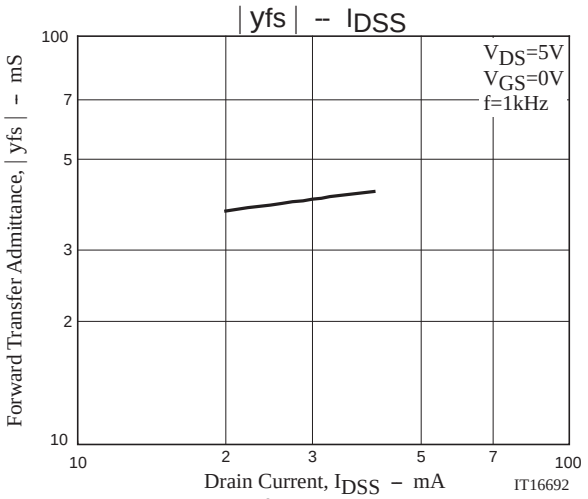


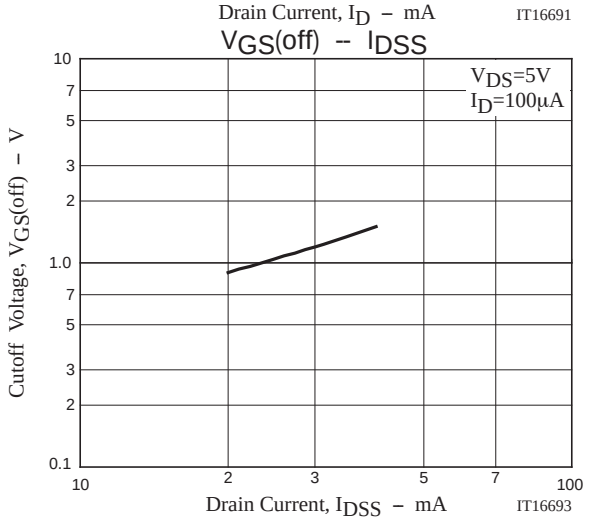


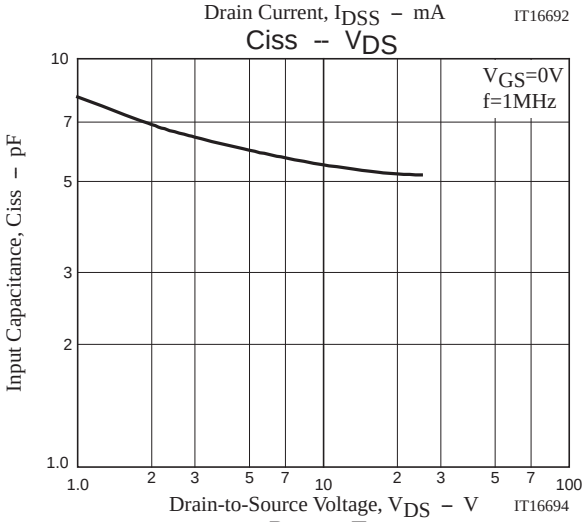


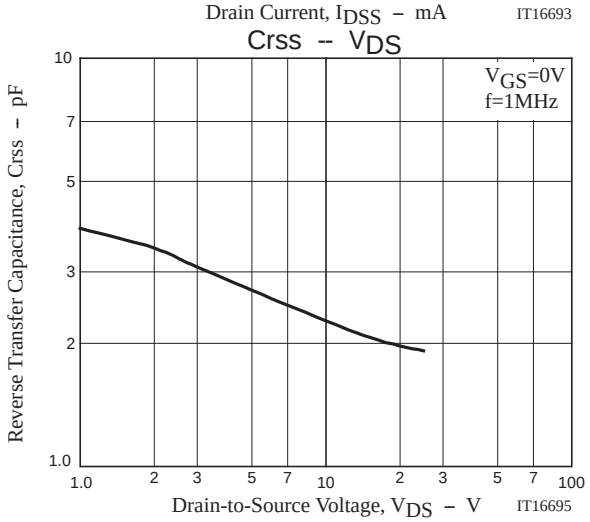


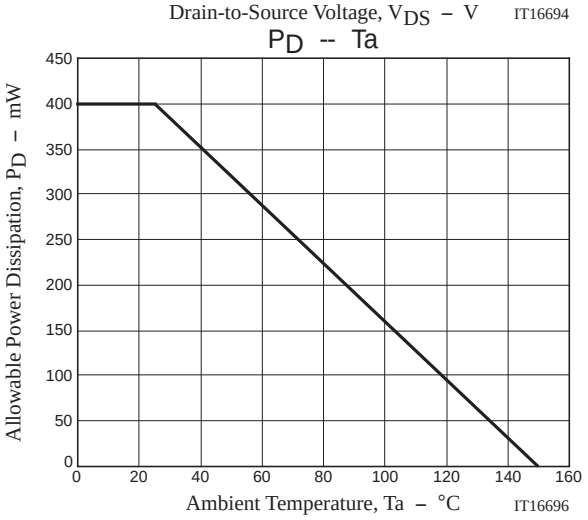

| yfs | -- ID
VDS=5V
f=1kHz
IDSS=30mA
Forward Transfer Admittance, | yfs | – mS
Drain Current, ID – mA
IT16691


| yfs | -- IDSS
VDS=5V
VGS=0V
f=1kHz
Forward Transfer Admittance, | yfs | – mS
Drain Current, IDSS – mA
IT16692


VGS(off) -- IDSS
VDS=5V
ID=100μA
Cutoff Voltage, VGS(off) – V
Drain Current, IDSS – mA
IT16693


Ciss -- VDS
VGS=0V
f=1MHz
Input Capacitance, Ciss – pF
Drain-to-Source Voltage, VDS – V
IT16694


Crss -- VDS
VGS=0V
f=1MHz
Reverse Transfer Capacitance, Crss – pF
Drain-to-Source Voltage, VDS – V
IT16695


PD -- Ta
Allowable Power Dissipation, PD – mW
Ambient Temperature, Ta – °C
IT16696

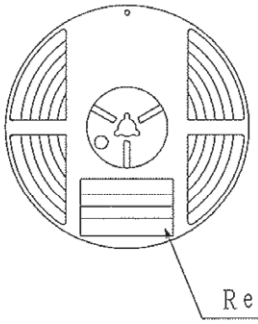
Embossed Taping Specification

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

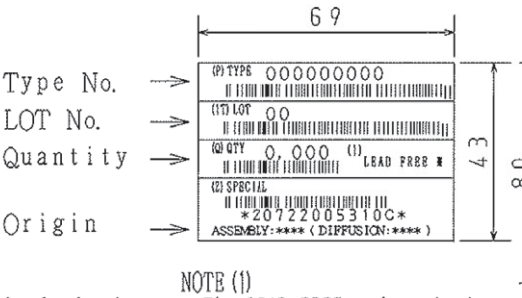
Packing method



Reel label

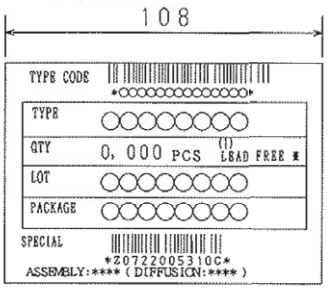
Reel label, Inner box label

(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.



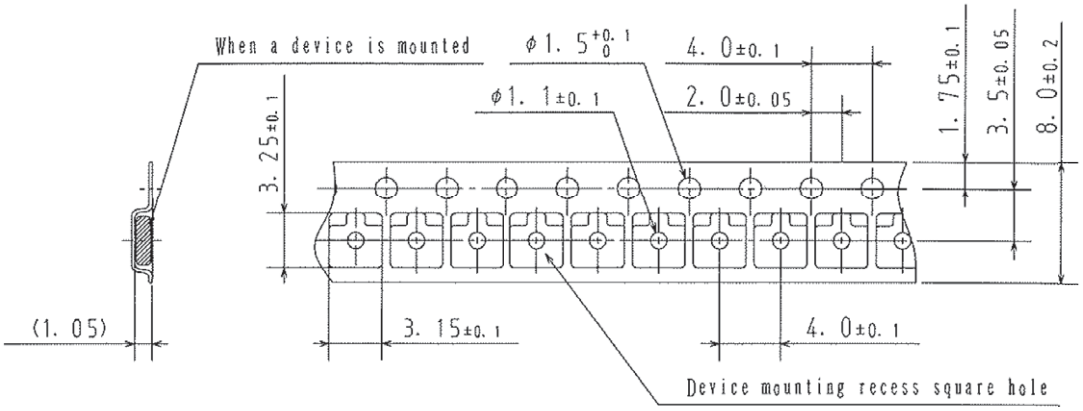
NOTE (1)

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

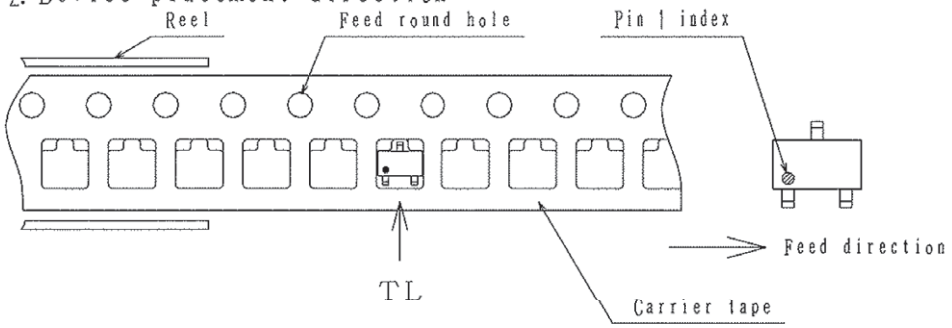
Label	JEITA Phase
LEAD FREE 3	JEITA Phase 3A
LEAD FREE 4	JEITA Phase 3

2. Taping configuration

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



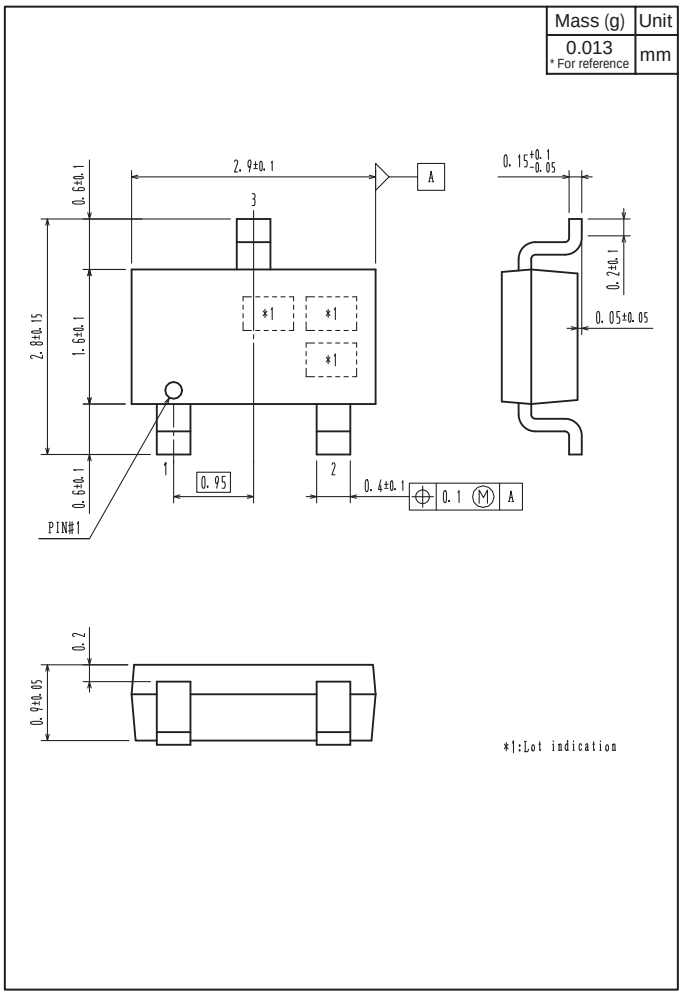
2-2. Device placement direction



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

Outline Drawing

CPH3910-TL-E



Land Pattern Example