



SANYO Semiconductors

DATA SHEET

An ON Semiconductor Company

N-Channel Junction Silicon FET

CPH3910 — High-Frequency Low-Noise Amplifier Applications

Applications

- For AM tuner RF amplification
- Low noise amplifier

Features

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

Specifications

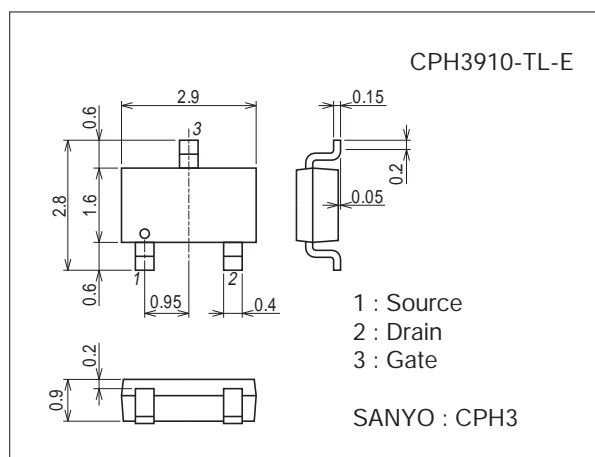
Absolute Maximum Ratings at $T_a=25^\circ\text{C}$

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	$^\circ\text{C}$

Package Dimensions

unit : mm (typ)

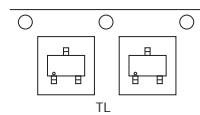
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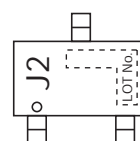
Product & Package Information

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

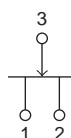
Packing Type: TL



Marking



Electrical Connection

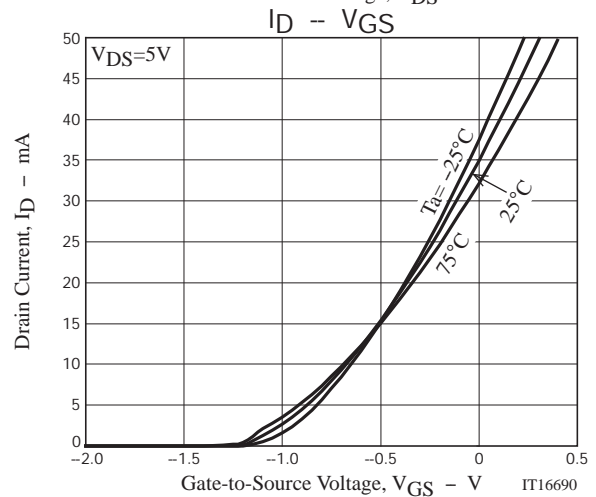
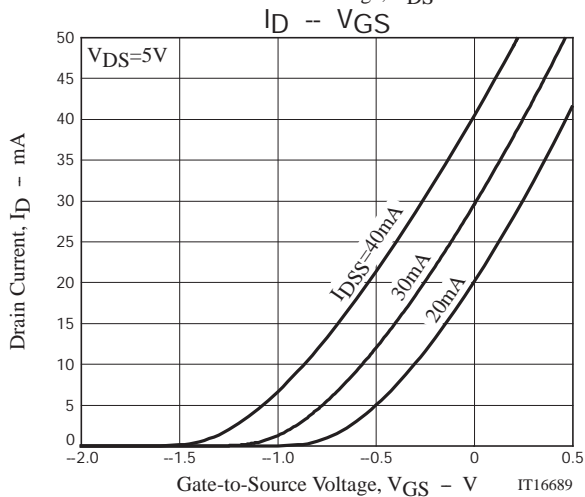
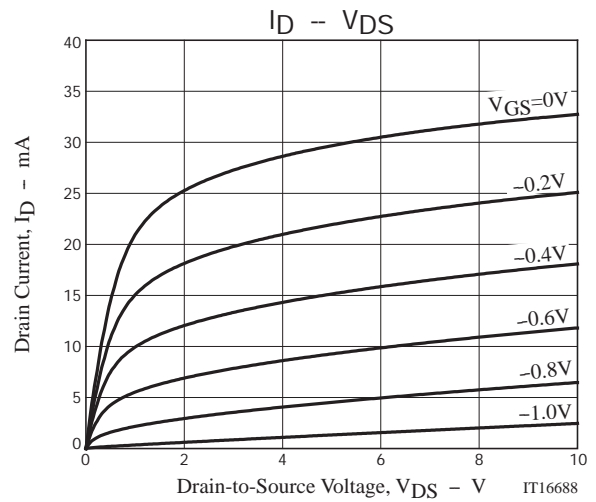
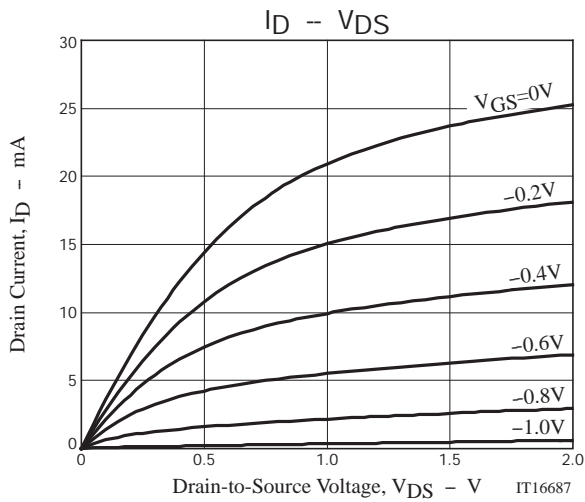


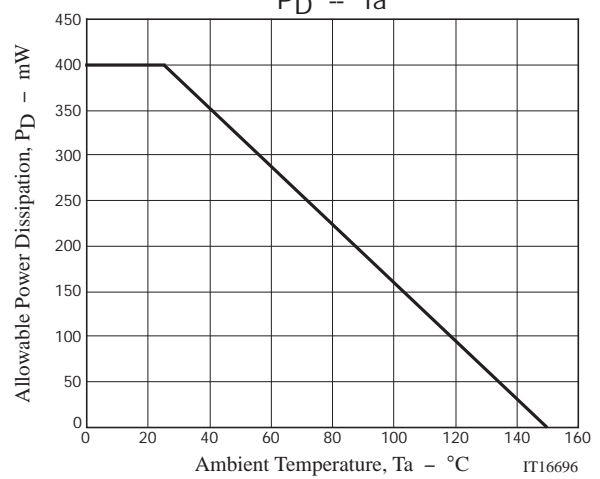
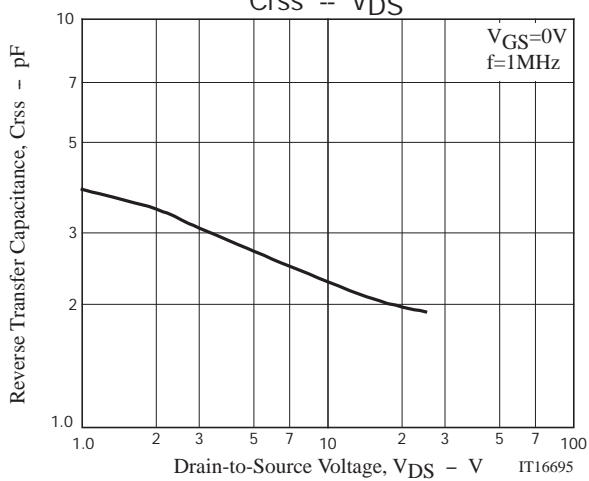
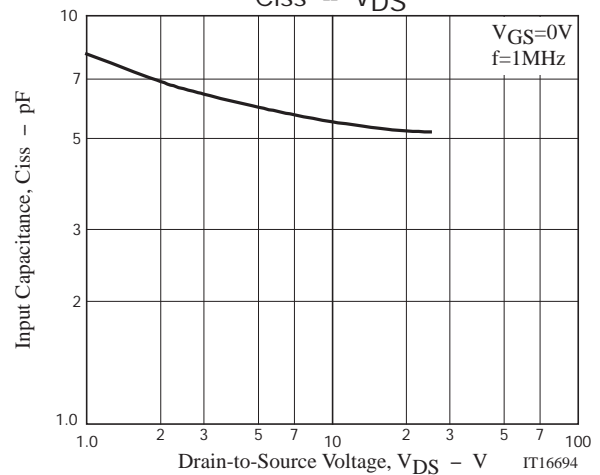
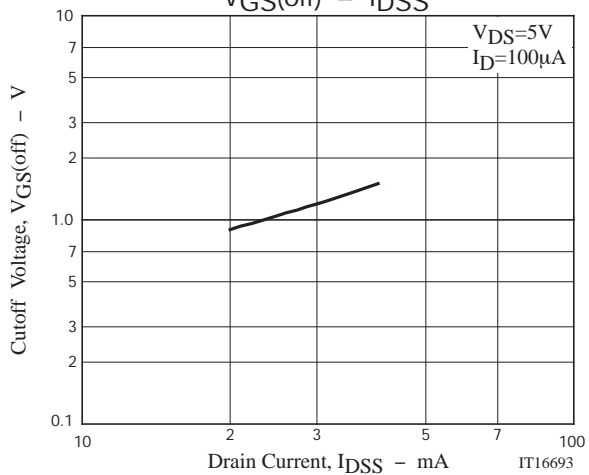
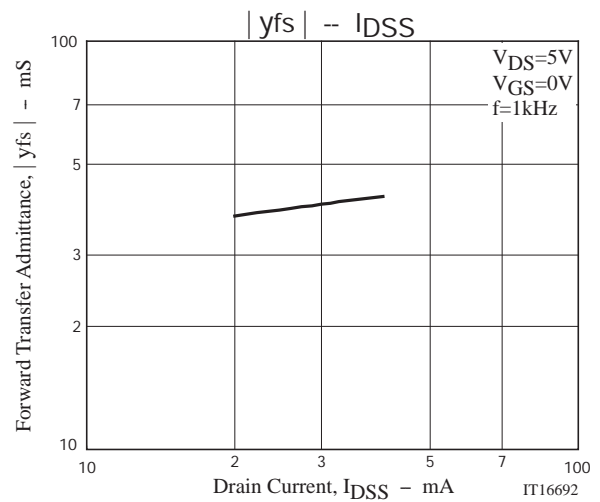
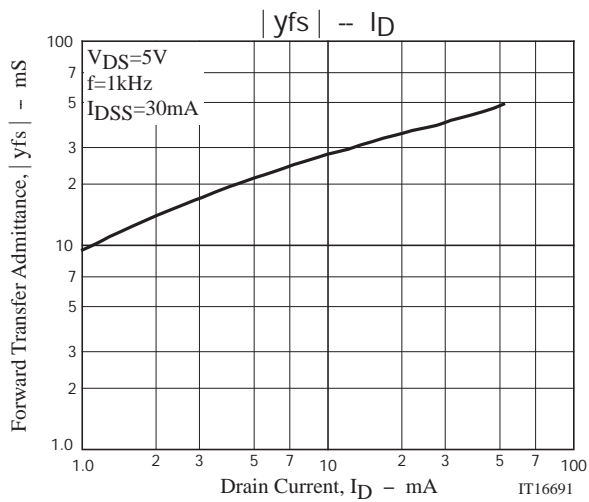
Electrical Characteristics at Ta=25°C

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	y _{fs}	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

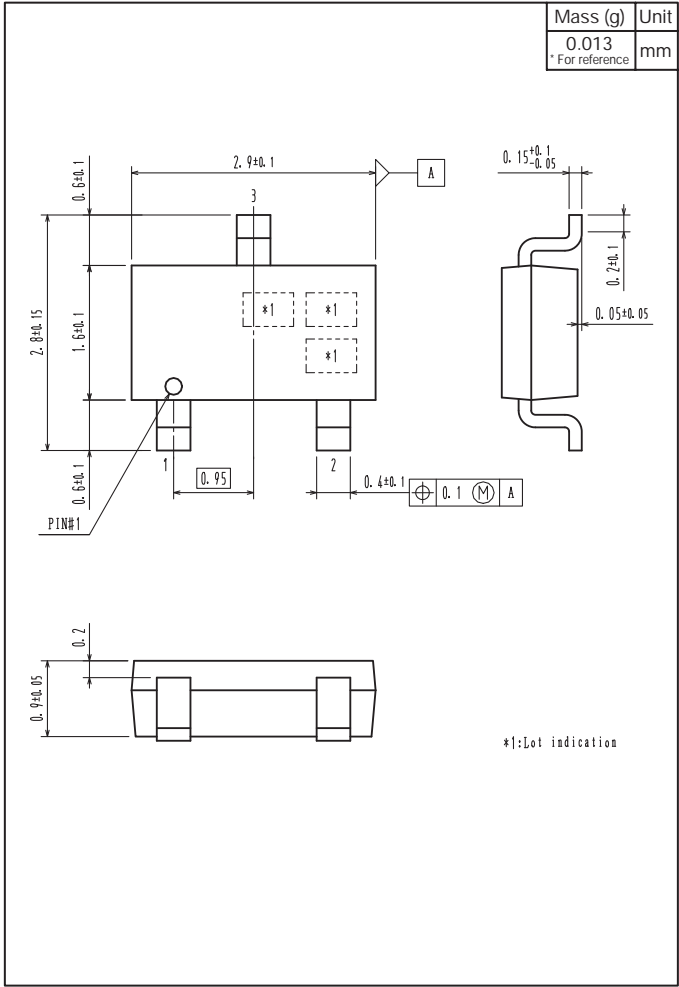
Ordering Information

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

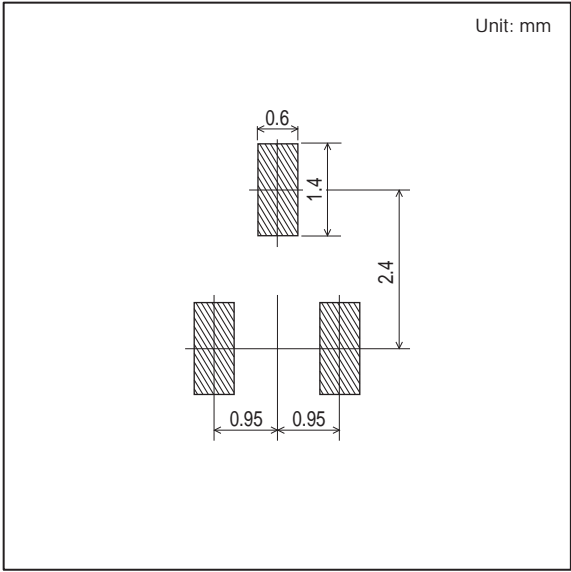




Outline Drawing
CPH3910-TL-E



Land Pattern Example



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