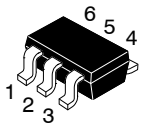
N-Channel JFET

25 V, 20 to 40 mA, 40 mS, Dual CPH6

CPH6904



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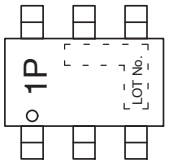
Features

- 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
- This is a Pb−Free Device

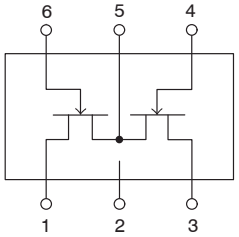
Product & Package Information

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

MARKING DIAGRAM



ELECTRICAL CONNECTION



1 : Drain 1
2 : NC
3 : Drain 2
4 : Gate 2
5 : Source 1 / Source 2
6 : Gate 1

ABSOLUTE MAXIMUM RATINGS (at T_A = 25°C)

Symbol	Parameter	Conditions	Ratings	Unit
V_{DSX}	Drain−to−Source Voltage		25	V
V_{GDS}	Gate−to−Drain Voltage		−25	V
I_G	Gate Current		10	mA
I_D	Drain Current		50	mA
P_D	Allowable Power Dissipation	1 unit	400	mW
P_T	Total Power Dissipation		700	mW
T_{ch}	Channel Temperature		150	°C
T_{stg}	Storage Temperature		−55 to +150	°C

Stresses exceeding those listed in the Maximum Ratings table may damage the device. If any of these limits are exceeded, device functionality should not be assumed, damage may occur and reliability may be affected.

ORDERING INFORMATION

Device	Package	Shipping†
CPH6904−TL−E	CPH6 (Pb−Free)	3 000 / Tape & Reel

†For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specification Brochure, BRD8011/D.

ELECTRICAL CHARACTERISTICS (at T_A = 25°C)

Symbol	Parameter	Test Conditions	Min	Typ	Max	Unit
$V_{(BR)GDS}$	Gate−to−Drain Breakdown Voltage	I_G = −10 μA, V_{DS} = 0 V	−25			V
I_{GSS}	Gate−to−Source Leakage Current	V_{GS} = −10 V, V_{DS} = 0 V			−1.0	nA
$V_{GS}(off)$	Cutoff Voltage	V_{DS} = 5 V, I_D = 100 μA	−0.6	−1.2	−1.8	V
I_{DSS}	Drain Current	V_{DS} = 5 V, V_{GS} = 0 V	20.0		40.0	mA
$\lvert y_{fs} \rvert$	Forward Transfer Admittance	V_{DS} = 5 V, V_{GS} = 0 V, f = 1 kHz	30	40		mS
C_{iss}	Input Capacitance	V_{DS} = 5 V, V_{GS} = 0 V, f = 1 MHz		6.0		pF
C_{rss}	Reverse Transfer Capacitance	V_{DS} = 5 V, V_{GS} = 0 V, f = 1 MHz		2.3		pF
N_F	Noise Figure	V_{DS} = 5 V, V_{GS} = 0 V, f = 100 MHz		2.1	2.8	dB

Product parametric performance is indicated in the Electrical Characteristics for the listed test conditions, unless otherwise noted. Product performance may not be indicated by the Electrical Characteristics if operated under different conditions.

TYPICAL PERFORMANCE CHARACTERISTICS

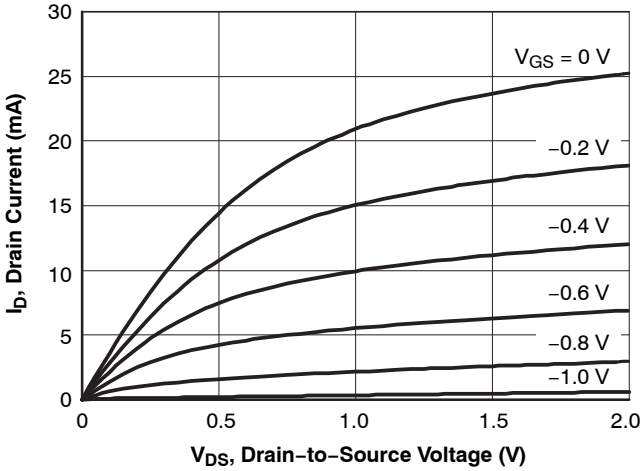


Figure 1. I_D – V_{DS}

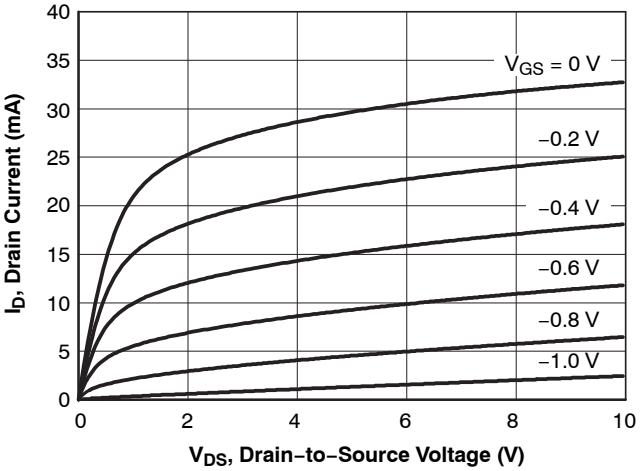


Figure 2. I_D – V_{DS}

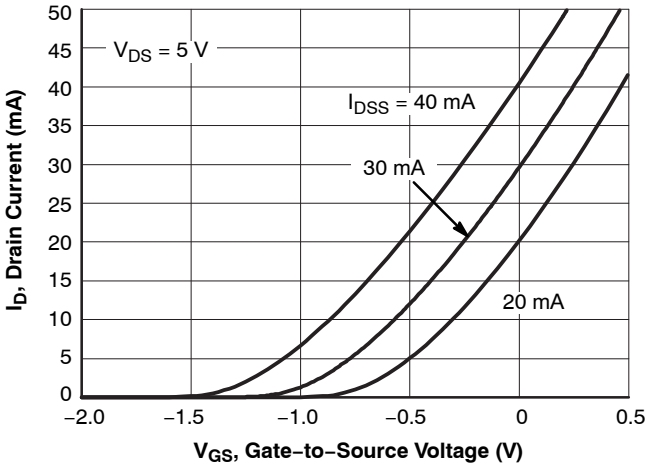


Figure 3. I_D – V_{GS}

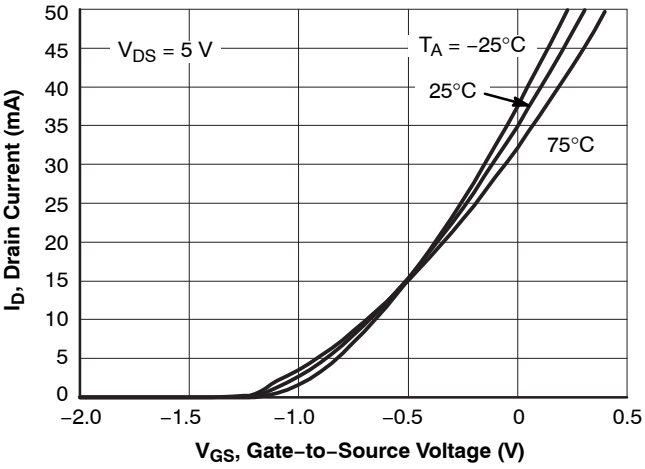


Figure 4. I_D – V_{GS}

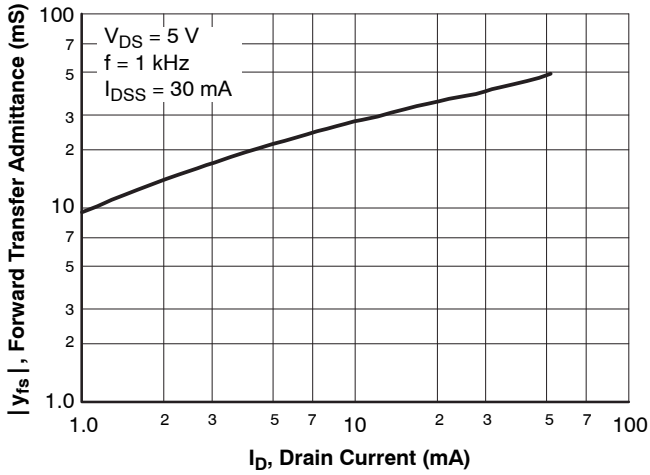


Figure 5. $|y_{fs}|$ – I_D

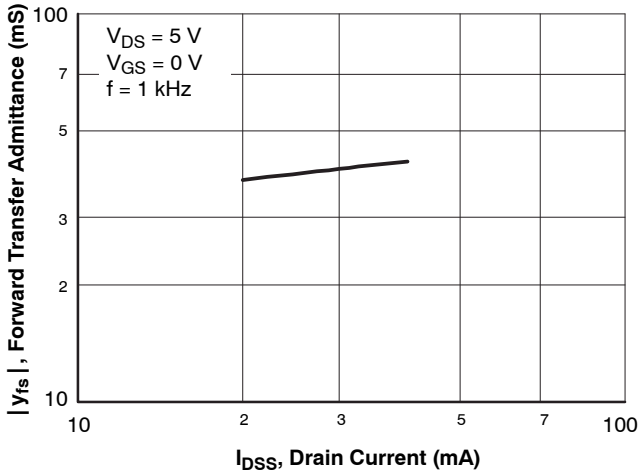


Figure 6. $|y_{fs}|$ – I_{DSS}

TYPICAL PERFORMANCE CHARACTERISTICS (Continued)

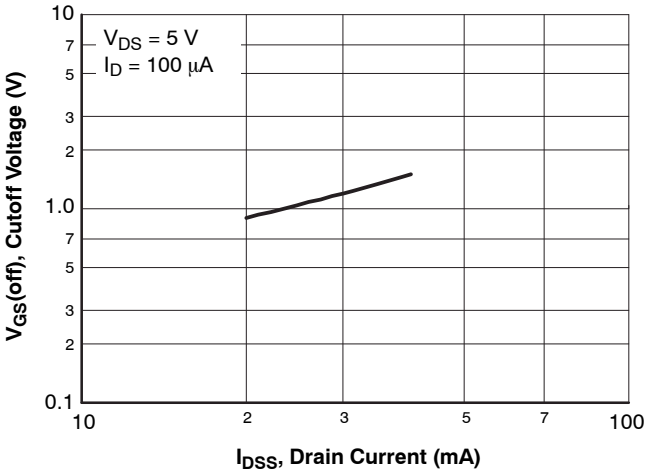


Figure 7. V_{GS}(off) – I_{DSS}

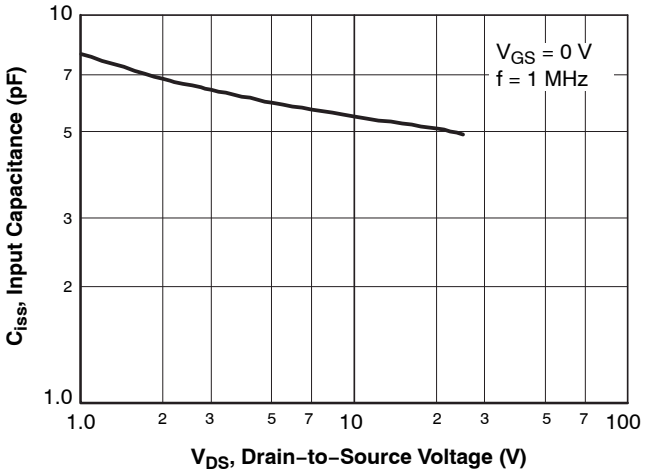


Figure 8. C_{iss} – V_{DS}

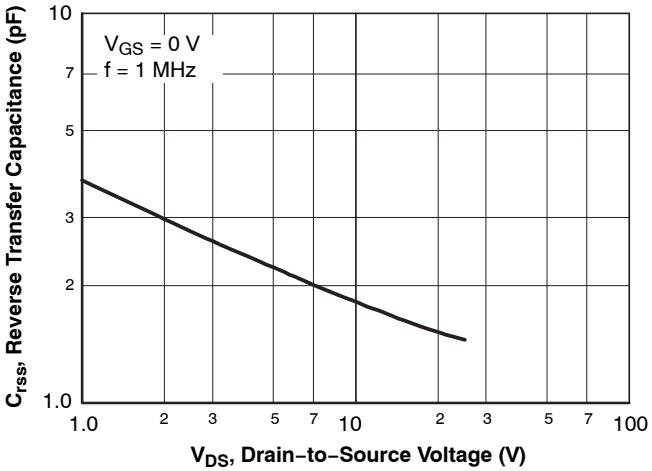


Figure 9. C_{rss} – V_{DS}

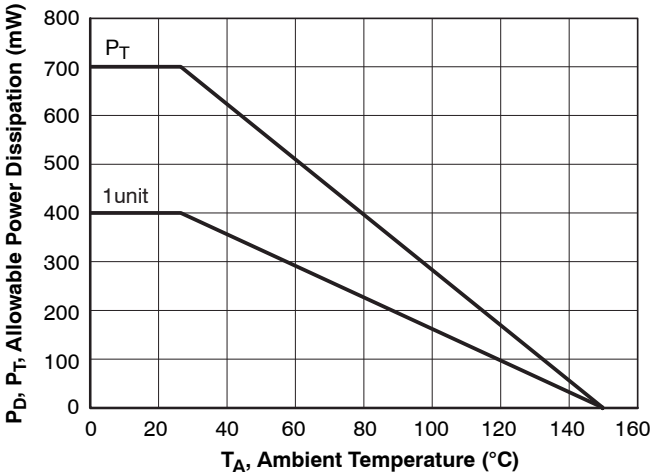


Figure 10. P_D, P_T – T_A

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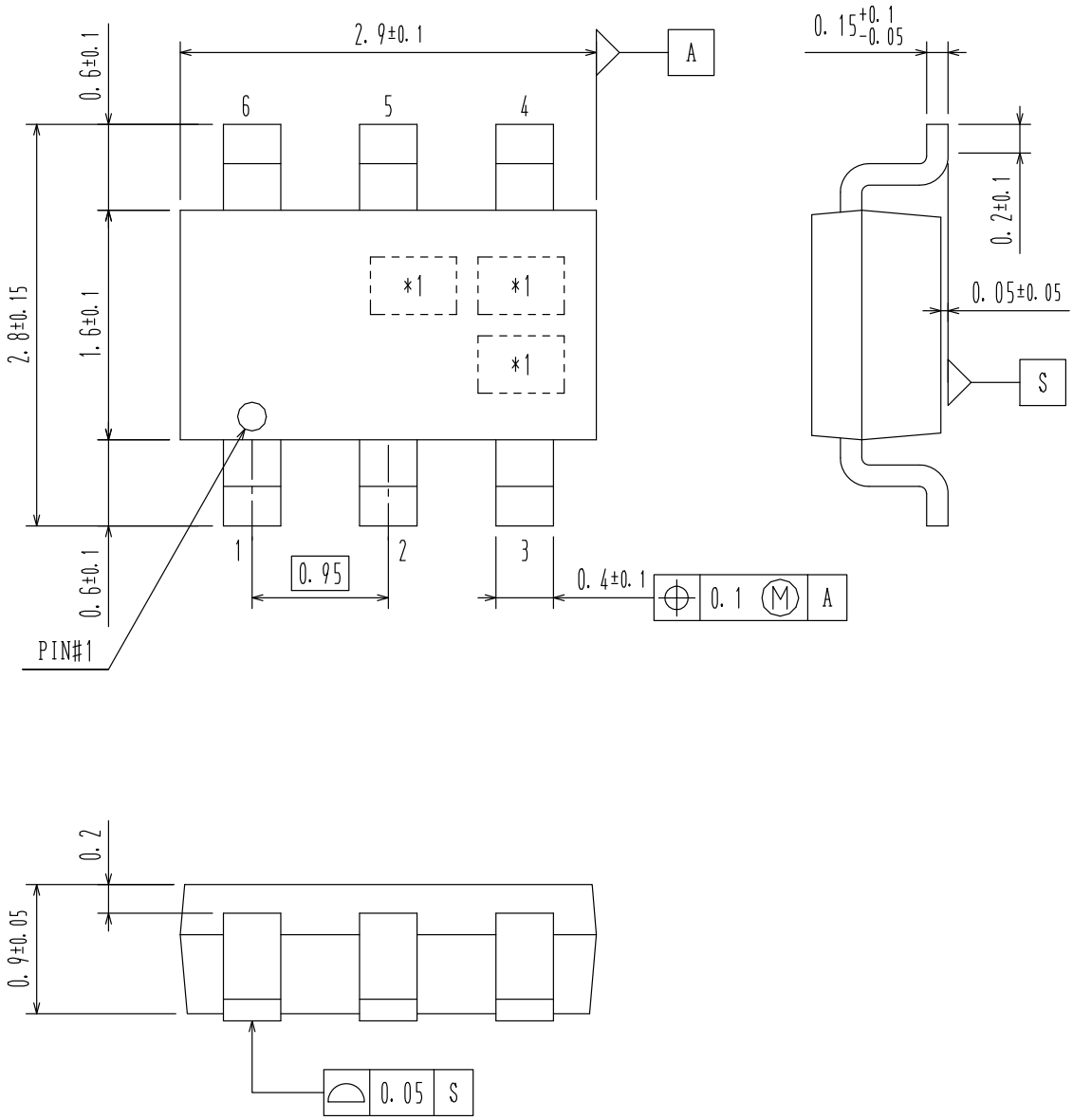

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