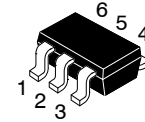


N-Channel JFET

25 V, 20 to 40 mA, 40 mS, Dual CPH6 CPH6904



CPH6
CASE 318BD

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

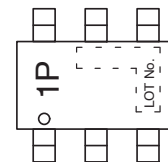
- Package: CPH6
- JEITA, JEDEC: SC-74, SOT-26, SOT-457
- Minimum Packing Quantity: 3,000 pcs./reel

ABSOLUTE MAXIMUM RATINGS (at $T_A = 25^\circ\text{C}$)

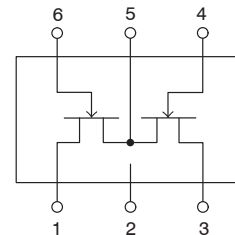
Symbol	Parameter	Conditions	Ratings	Unit
V_{DSX}	Drain-to-Source Voltage		25	V
V_{GDS}	Gate-to-Drain Voltage		-25	V
I_G	Gate Current		10	mA
I_D	Drain Current		50	mA
P_D	Allowable Power Dissipation	1 unit	400	mW
P_T	Total Power Dissipation		700	mW
T_{ch}	Channel Temperature		150	$^\circ\text{C}$
T_{stg}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

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.

MARKING DIAGRAM



ELECTRICAL CONNECTION



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

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](http://www.onsemi.com/BRD8011/D).

ELECTRICAL CHARACTERISTICS (at $T_A = 25^\circ\text{C}$)

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

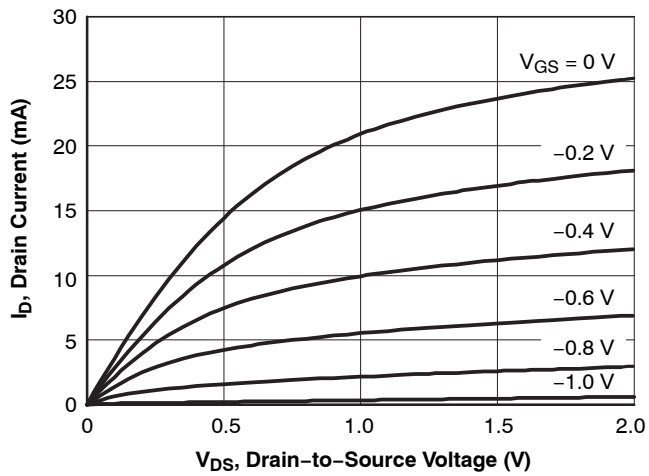


Figure 1. $I_D - V_{DS}$

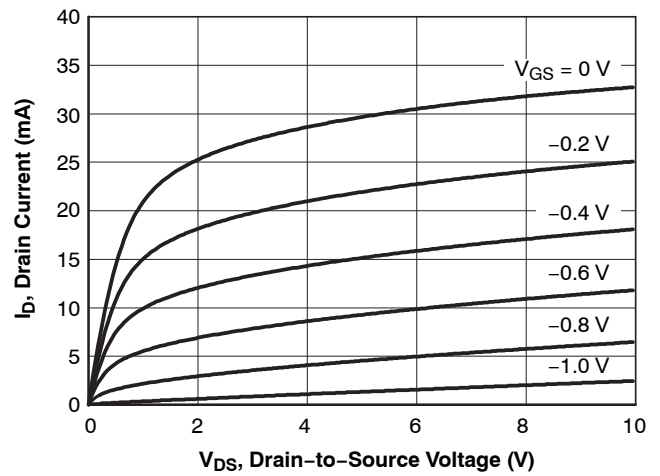


Figure 2. $I_D - V_{DS}$

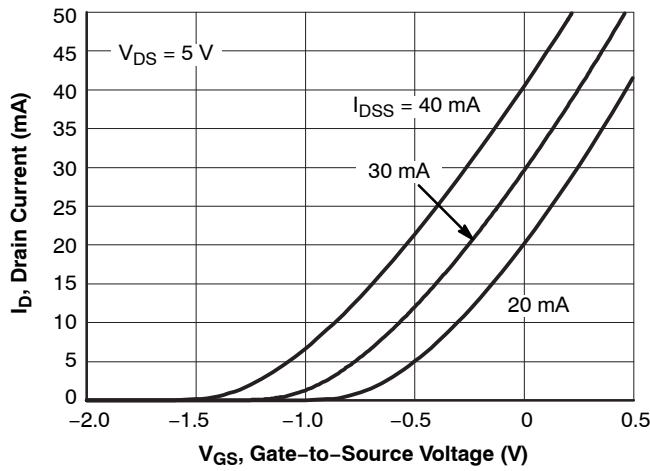


Figure 3. $I_D - V_{GS}$

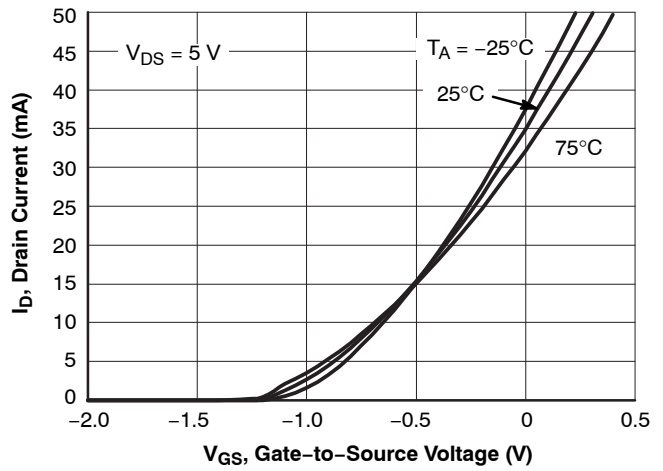


Figure 4. $I_D - V_{GS}$

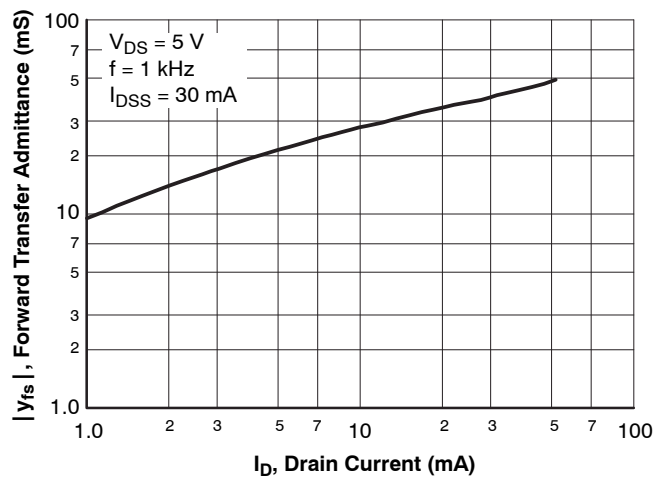


Figure 5. $|y_{fs}| - I_D$

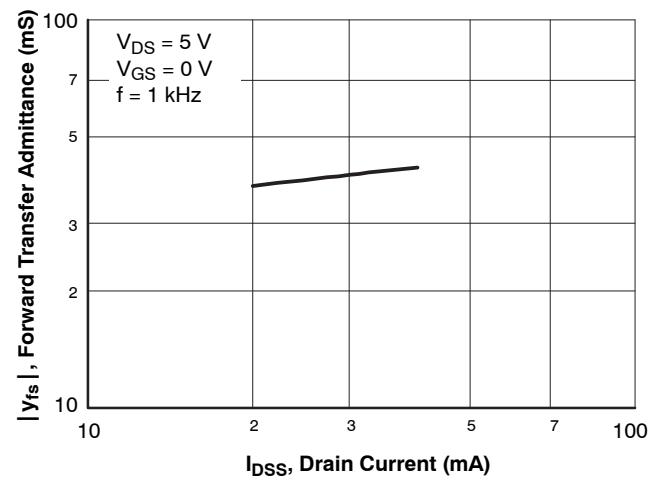


Figure 6. $|y_{fs}| - I_{DSS}$

TYPICAL PERFORMANCE CHARACTERISTICS (Continued)

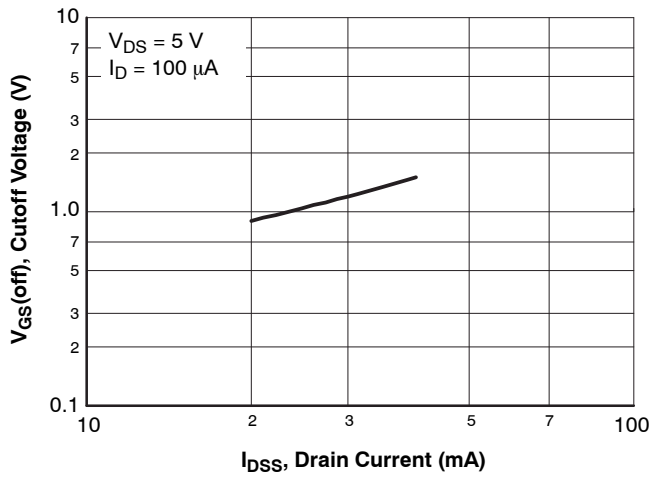


Figure 7. $V_{GS(off)}$ – I_{DSS}

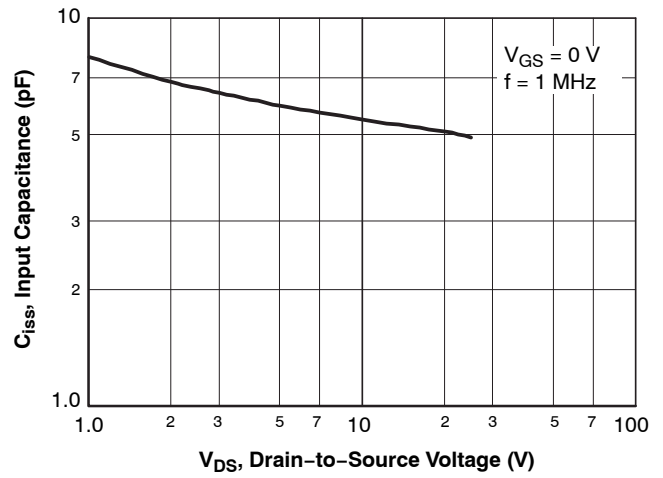


Figure 8. C_{iss} – V_{DS}

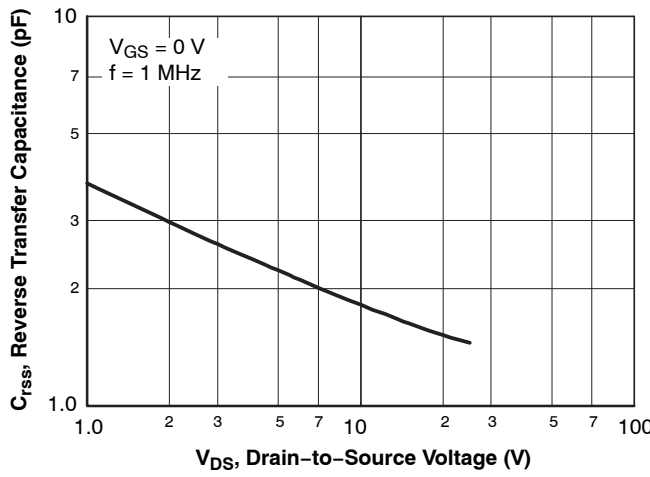


Figure 9. C_{rss} – V_{DS}

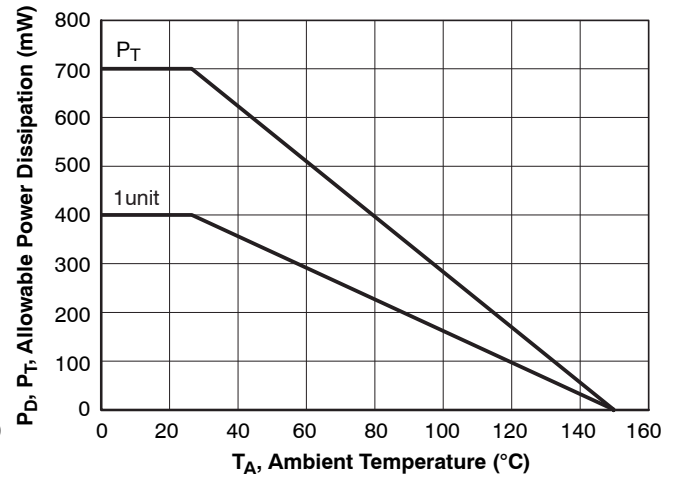
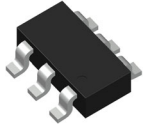
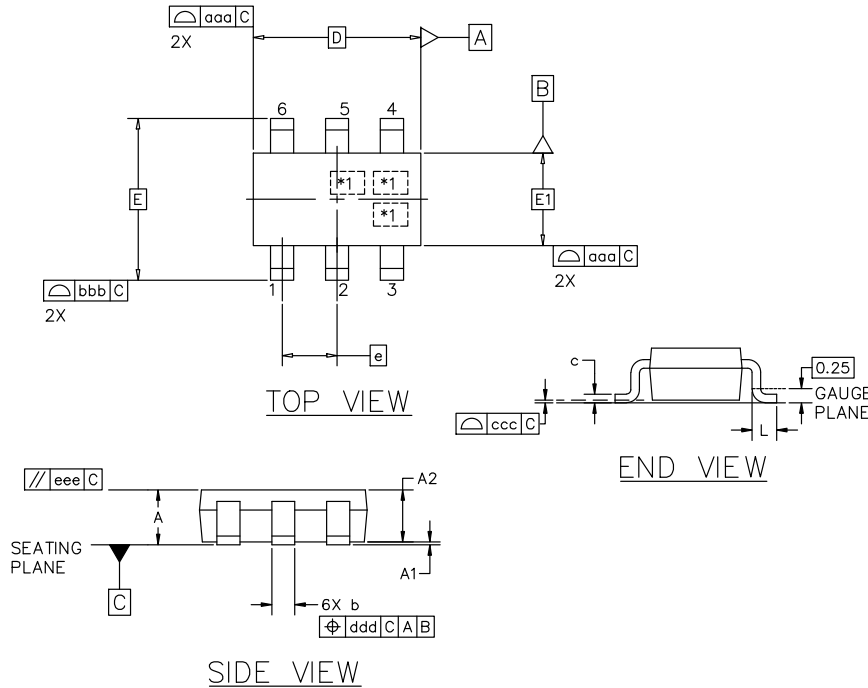


Figure 10. P_D , P_T – T_A



CPH6 2.90x1.60x0.90, 0.95P
CASE 318BD
ISSUE A

DATE 20 SEPT 2024

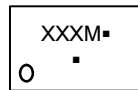


MILLIMETERS			
DIM	MIN	NOM	MAX
A	0.85	0.95	1.05
A1	0.00	0.05	0.10
A2	0.85	0.90	0.95
b	0.30	0.40	0.50
c	0.10	0.15	0.25
D	2.90 BSC		
E	2.80 BSC		
E1	1.60 BSC		
e	0.95 BSC		
L	0.10	0.20	0.30
TOLERANCE FORM AND POSITION			
aaa	0.10		
bbb	0.15		
ccc	0.05		
ddd	0.10		
eee	0.10		

NOTES:

1. DIMENSIONING AND TOLERANCING PER ASME Y14.5M, 2018.
2. CONTROLLING DIMENSION: MILLIMETERS
3. *1 IS FOR LOT INDICATION

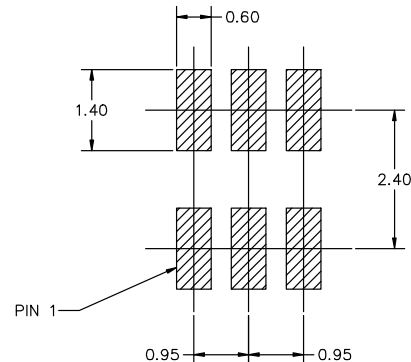
GENERIC
MARKING DIAGRAM*



XXX = Specific Device Code
M = Date Code
▪ = Pb-Free Package

(Note: Microdot may be in either location)

*This information is generic. Please refer to device data sheet for actual part marking. Pb-Free indicator, "G" or microdot "▪", may or may not be present. Some products may not follow the Generic Marking.



RECOMMENDED MOUNTING FOOTPRINT

* For additional information on our Pb-Free strategy and soldering details, please download the onsemi Soldering and Mounting Techniques Reference Manual, SOLDERRM/D.

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DESCRIPTION:	CPH6 2.90x1.60x0.90, 0.95P	PAGE 1 OF 1

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