onsemi

N-Channel JFET

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

CPH6904

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 $T_A = 25^{\circ}C$)

Symbol	Parameter	Conditions	Ratings	Unit
V _{DSX}	Drain-to-Source Voltage		25	V
V _{GDS}	Gate-to-Drain Voltage		-25	V
l _G	Gate Current		10	mA
I _D	Drain Current		50	mA
PD	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.

CPH6 CASE 318BD

MARKING DIAGRAM



ELECTRICAL CONNECTION



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, <u>BRD8011/D</u>.

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

Symbol	Parameter	Test Conditions	Min	Тур	Max	Unit
V _{(BR)GDS}	Gate-to-Drain Breakdown Voltage	$I_G = -10 \ \mu\text{A}, \ V_{DS} = 0 \ V$	-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
y _{fs}	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 (Continued)





MILLIMETERS

NOM

0.95

0.05

MIN

0.85

0.00

DIM

A A1 DATE 20 SEPT 2024

MAX

1.05

0.10

CPH6 2.90x1.60x0.90, 0.95P CASE 318BD **ISSUE A** D A 2X В *1 *1 E1 Ē *1 2X ___bbb C 2X e 0.25 GAUGE TOP VIEW PLANE END VIEW // eee C - A2 SEATING PLANE С 6X b 🕀 ddd C A B SIDE VIEW

NOTES:

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



XXX	= Specific Device Code
М	= 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 downloadd 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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