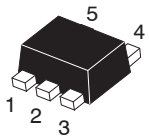
N-Channel JFET 15 V, 10 to 32 mA, 35 mS, Dual MCPH5

MCH5908



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

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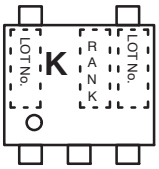
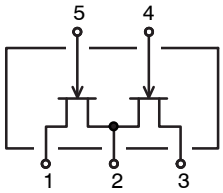
MARKING DIAGRAM



ELECTRICAL CONNECTION



Features

- Composite Type with 2 J−FET Contained in a MCPH5 Package Currently in Use, Improving the Mounting Efficiency Greatly
- The MCH5908 is Formed with Two Chips, Being Equivalent to the 2SK3557, Placed in One Package
- This is a Pb−Free Device

Specifications

ABSOLUTE MAXIMUM RATINGS (T_A = 25°C)

Parameter	Symbol	Conditions	Ratings	Unit
Drain−to−Source Voltage	V_{DSX}		15	V
Gate−to−Drain Voltage	V_{GDS}		−15	V
Gate Current	I_G		10	mA
Drain Current	I_D		50	mA
Allowable Power Dissipation	P_D	1 unit	200	mW
Total Power Dissipation	P_T		300	mW
Junction Temperature	Tj		150	°C
Storage Temperature	Tstg		−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†
MCH5908H−TL−E	SC−88AFL/ MCPH5 (Pb−Free)	3000 / Tape & Reel

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

ELECTRICAL CHARACTERISTICS (T_A = 25°C)

Parameter	Symbol	Conditions	Ratings			Unit
			Min	Typ	Max	
Gate−to−Drain Breakdown Voltage	$V_{(BR)GDS}$	I_G = −10 μA, V_{DS} = 0 V	−15	–	–	V
Gate−to−Source Leakage Current	I_{GSS}	V_{GS} = −10 V, V_{DS} = 0 V	–	–	−1.0	nA
Cutoff Voltage	V_{GS}(off)	V_{DS} = 5 V, I_D = 100 μA	−0.3	−0.7	−1.5	V
Zero−Gate Voltage Drain Current	I_{DSS}	V_{DS} = 5 V, V_{GS} = 0 V	10.0*	–	32.0*	mA
Forward Transfer Admittance	|yfs|	V_{DS} = 5 V, V_{GS} = 0 V, f = 1 kHz	24	35	–	mS
Input Capacitance	Ciss	V_{DS} = 5 V, V_{GS} = 0 V, f = 1 MHz	–	10.5	–	pF
Reverse Transfer Capacitance	Crss		–	3.5	–	pF
Noise Figure	NF	V_{DS} = 5 V, Rg = 1 kΩ, I_D = 1 mA, f = 1 kHz	–	1.0	–	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.
*The MCH5908 is classified by I_{DSS} as follows (unit: mA).

Rank	G	H
I_{DSS}	10 to 20	16 to 32

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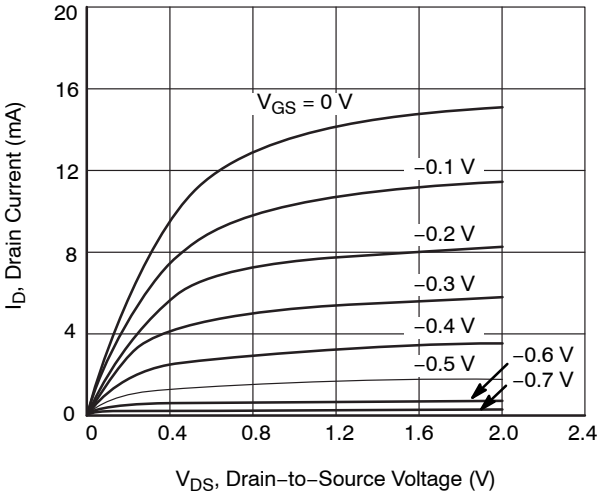

Figure 1. I_D – V_{DS}

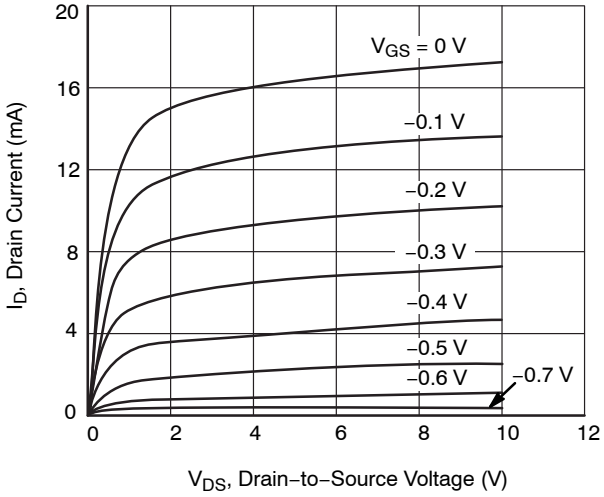

Figure 2. I_D – V_{DS}

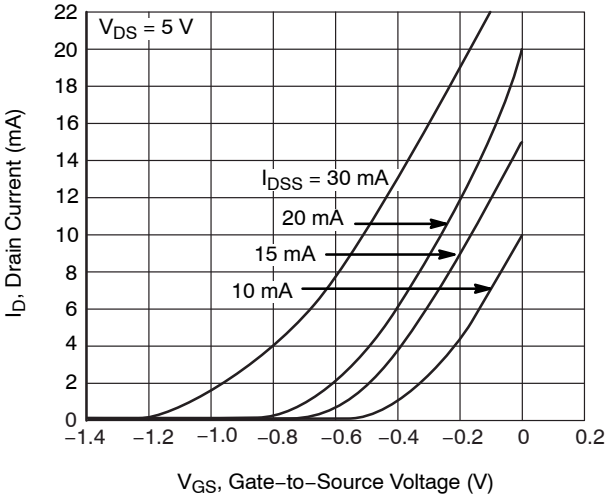

Figure 3. I_D – V_{GS}

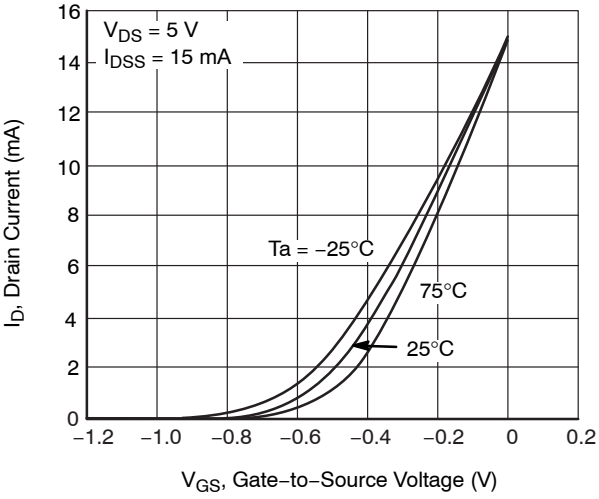

Figure 4. I_D – V_{GS}

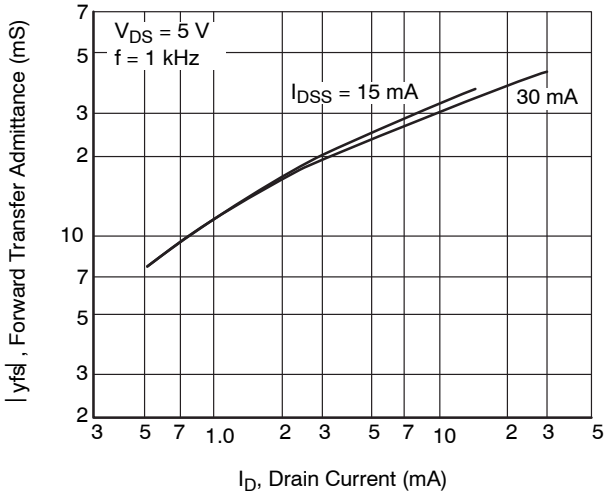

Figure 5. |yfs| – I_D

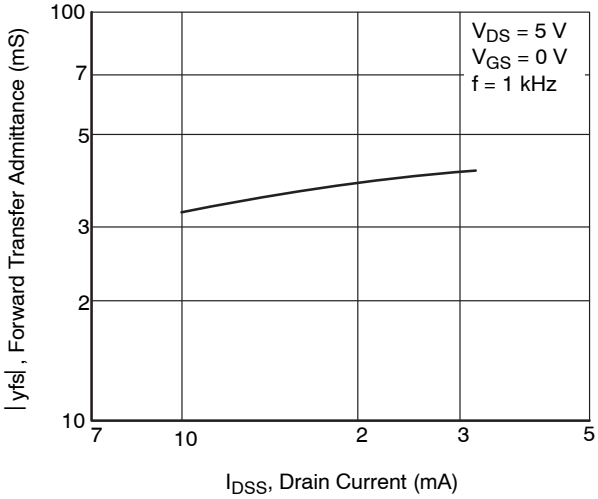

Figure 6. |yfs| – I_{DSS}

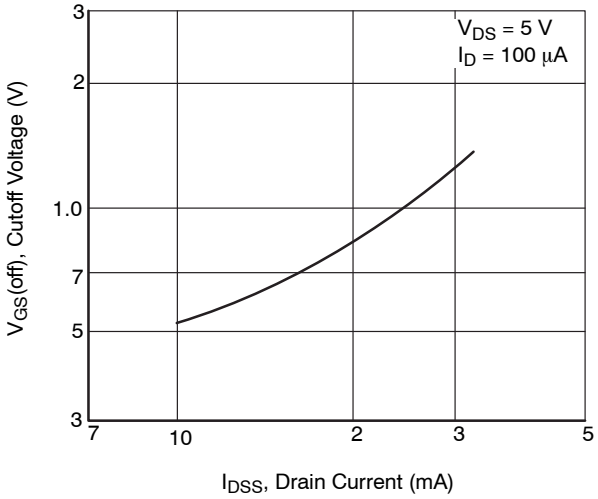

Figure 7. $V_{GS}(off)$ – I_{DSS}

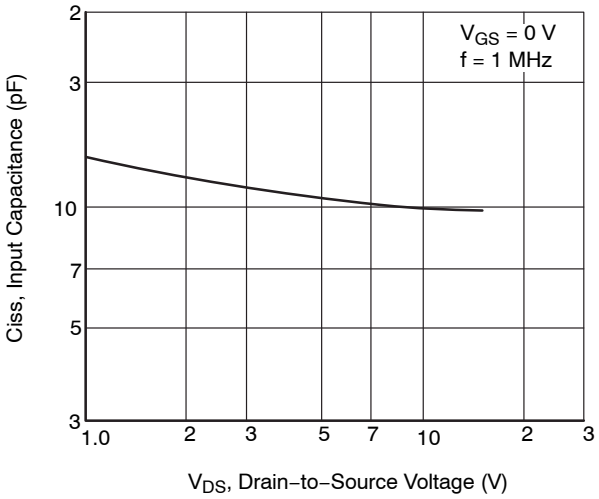

Figure 8. Ciss – V_{DS}

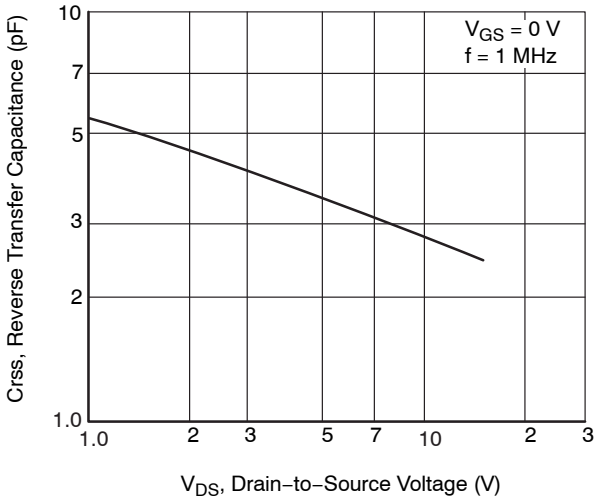

Figure 9. Crss – V_{DS}

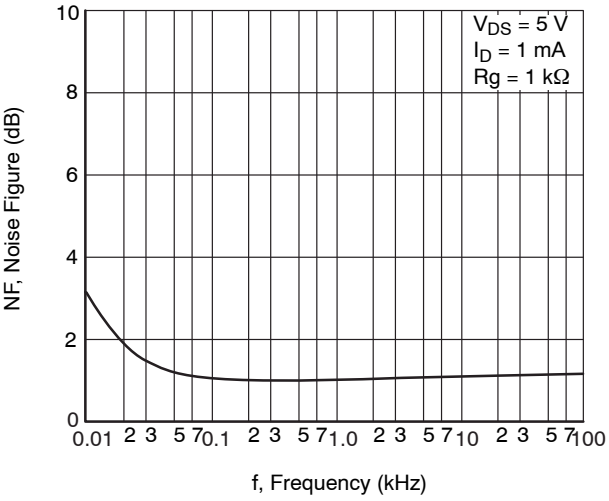

Figure 10. NF – f

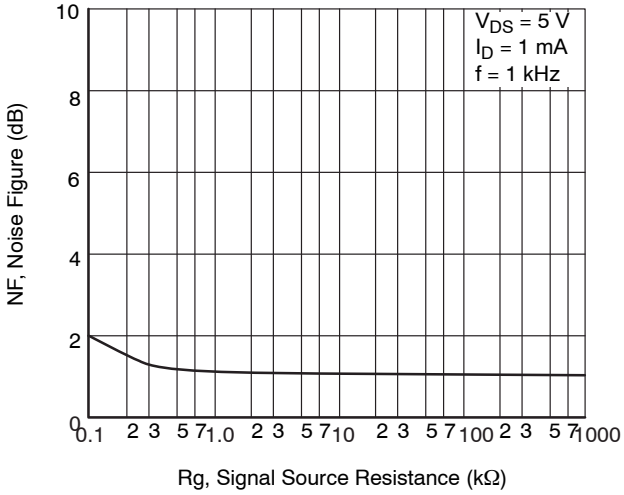

Figure 11. NF – Rg

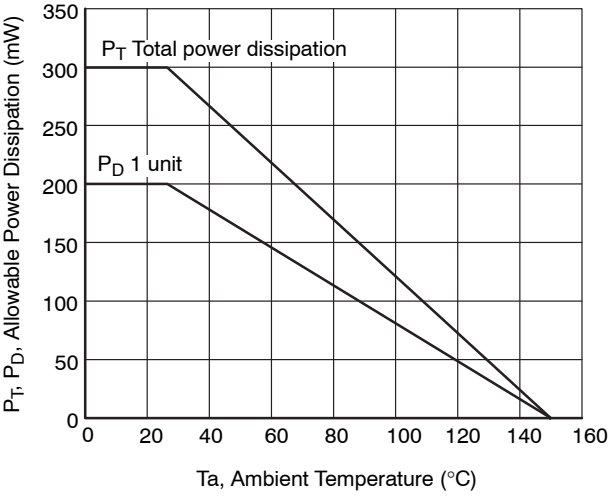

Figure 12. P_T, P_D – Ta

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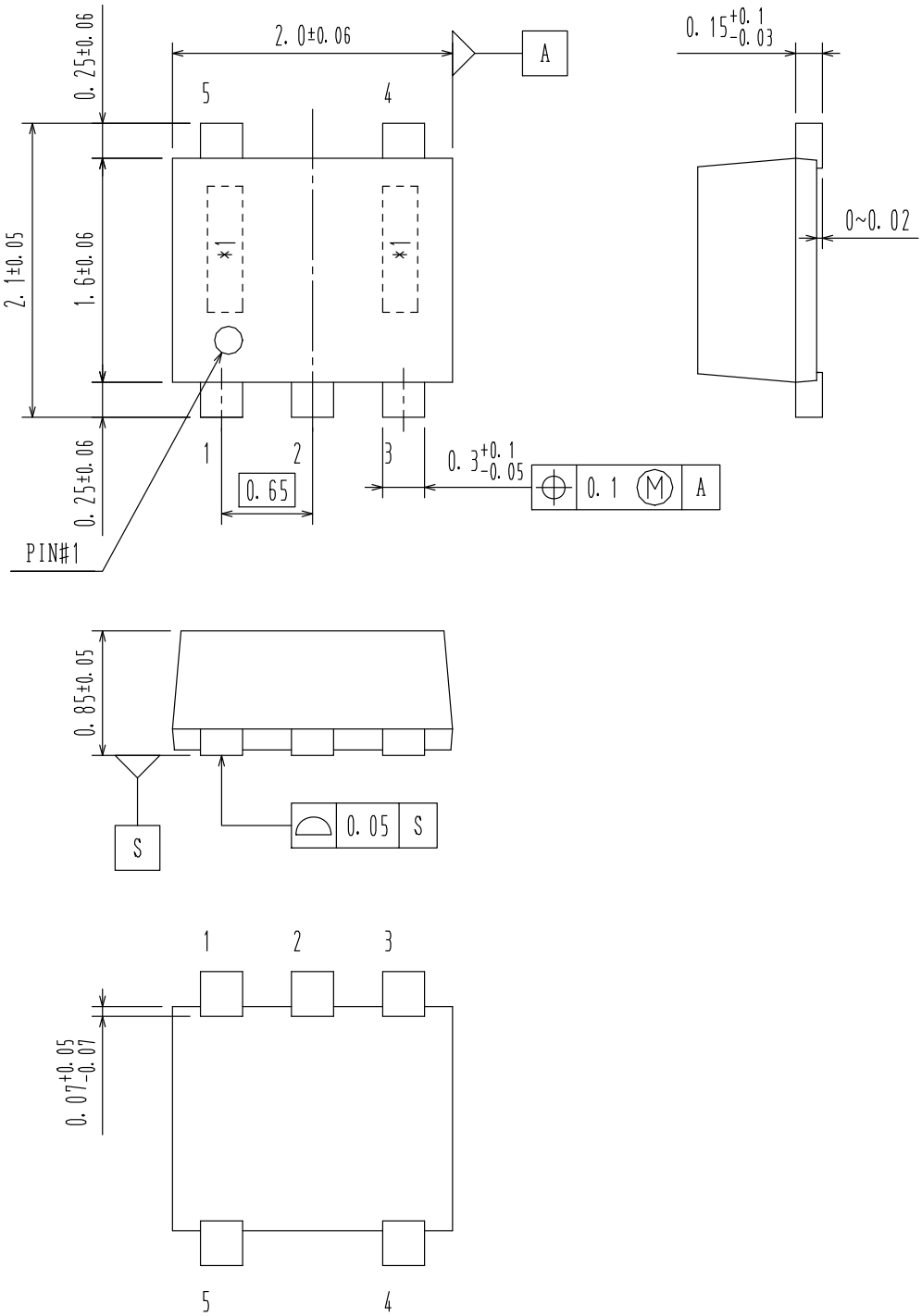

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