



SANYO Semiconductors

DATA SHEET

An ON Semiconductor Company

N-Channel Junction Silicon FET

MCH3914 — High-Frequency Amplifier, Analog Switch Applications

Features

- $|y_{fs}|$ is large
- C_{iss} is small
- Small package
- FBET process
- Halogen free compliance

Specifications

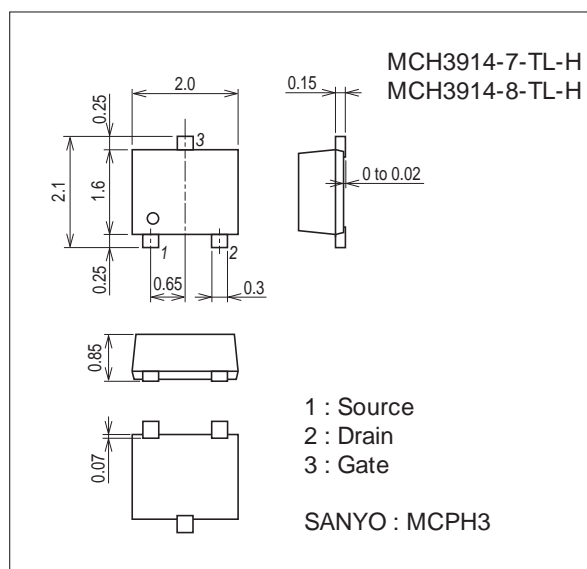
Absolute Maximum Ratings at $T_a=25^\circ\text{C}$

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		5	mA
Drain Current	I_D		50	mA
Allowable Power Dissipation	P_D	When mounted on ceramic substrate (600mm ² ×0.8mm)	300	mW
Junction Temperature	T_J		150	°C
Storage Temperature	T_{stg}		-55 to +150	°C

Package Dimensions

unit : mm (typ)

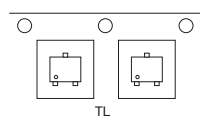
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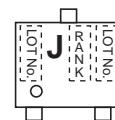
Product & Package Information

- Package : MCPH3
- JEITA, JEDEC : SC-70, SOT-323
- Minimum Packing Quantity : 3,000 pcs./reel

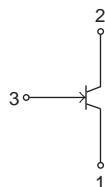
Packing Type : TL



Marking



Electrical Connection



MCH3914

Electrical Characteristics at Ta=25°C

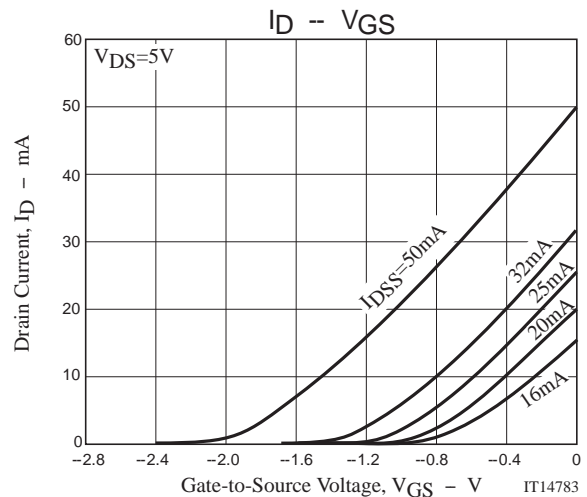
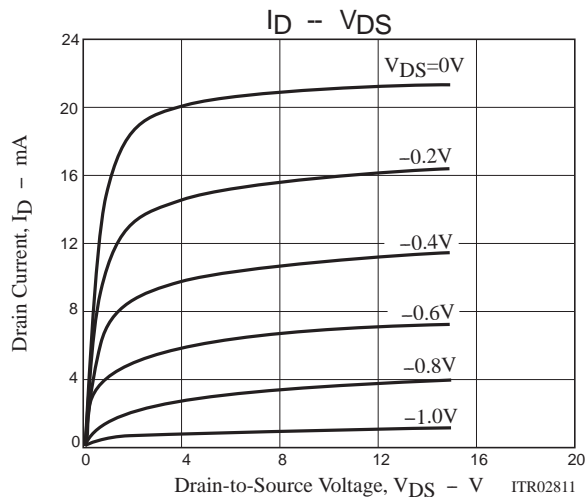
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Gate-to-Drain Breakdown Voltage	V(BR)GDS	IG=-10μA, VDS=0V	-15			V
Gate-to-Source Leakage Current	IGSS	VGS=-10V, VDS=0V			-1.0	nA
Cutoff Voltage	VGS(off)	VDS=5V, ID=10μA	-0.6	-1.4	-3.0	V
Zero-Gate Voltage Drain Current	IDSS	VDS=5V, VGS=0V	16.0*		50.0*	mA
Forward Transfer Admittance	yfs 1	VDS=5V, ID=10mA, f=1kHz	14	21		mS
	yfs 2	VDS=5V, VGS=0V, f=1kHz	14	29		mS
Input Capacitance	Ciss	VDS=5V, VGS=0V, f=1MHz		4.9		pF
Reverse Transfer Capacitance	Crss			1.4		pF

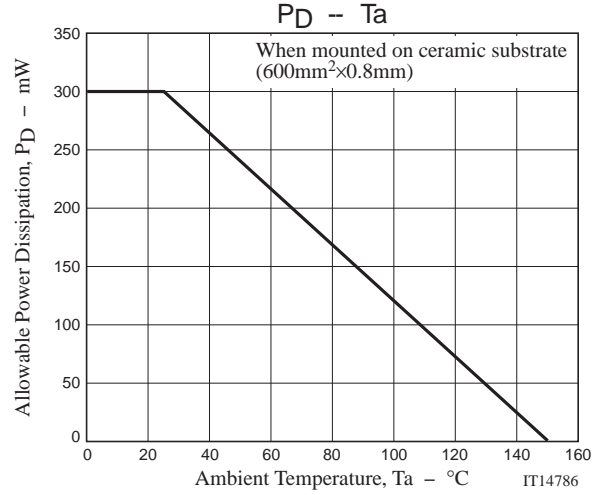
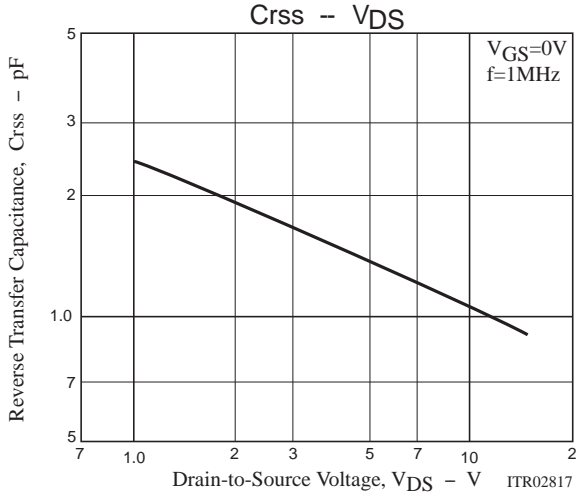
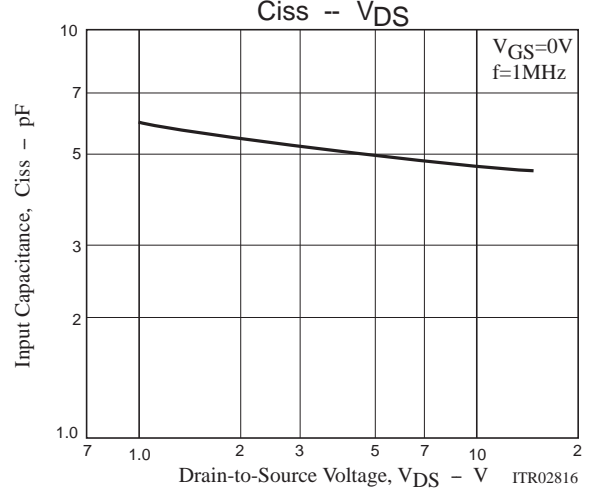
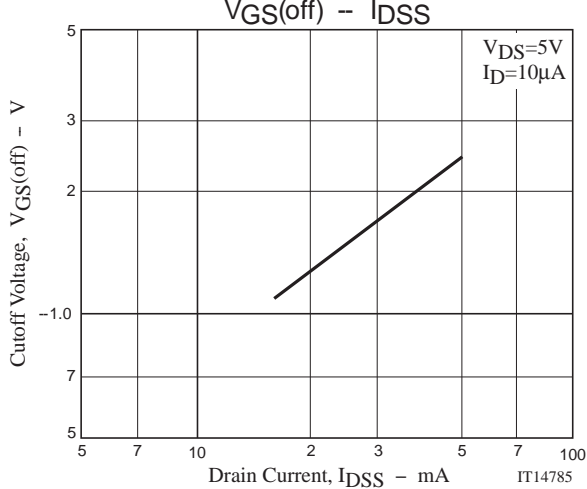
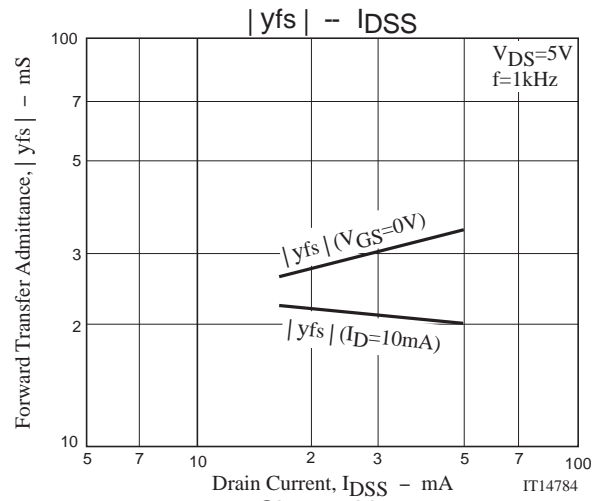
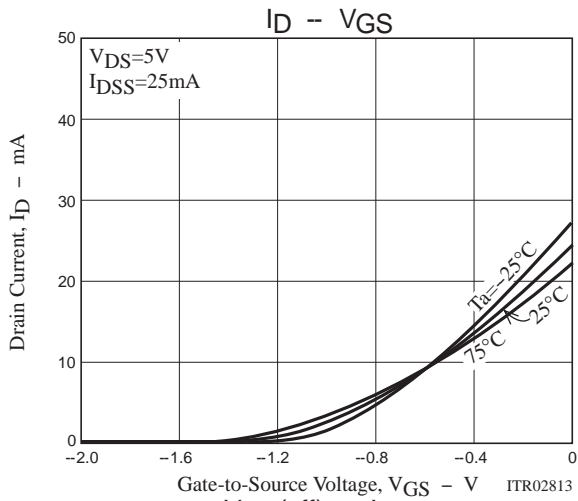
* : The MCH3914 is classified by IDSS as follows : (unit : mA)

Rank	7	8
IDSS	16.0 to 32.0	25.0 to 50.0

Ordering Information

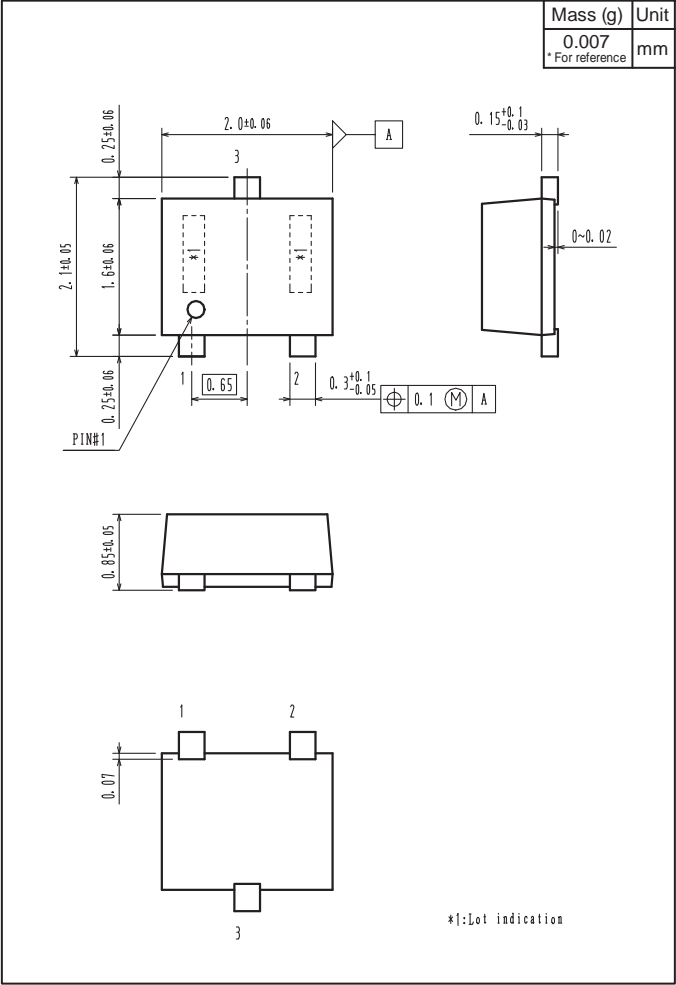
Device	Package	Shipping	memo
MCH3914-7-TL-H	MCPH3	3,000pcs./reel	Pb Free and Halogen Free
MCH3914-8-TL-H	MCPH3	3,000pcs./reel	



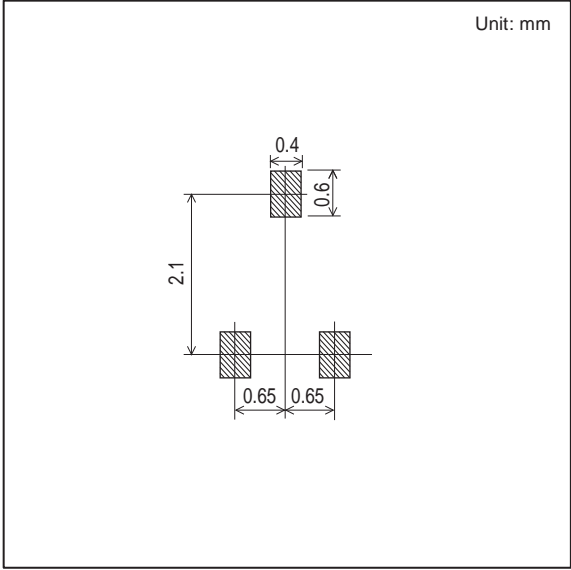


Outline Drawing

MCH3914-7-TL-H, MCH3914-8-TL-H



Land Pattern Example



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