MCH6301

P- Channel Silicon MOS FET
Very High - Speed Switching Applications

TENTATIVE

Features and Applications

- Low ON-state resistance.
- Very High Speed Switching.
- 2.5V drive.

Absolute Maximum Ratings / Ta=25°C

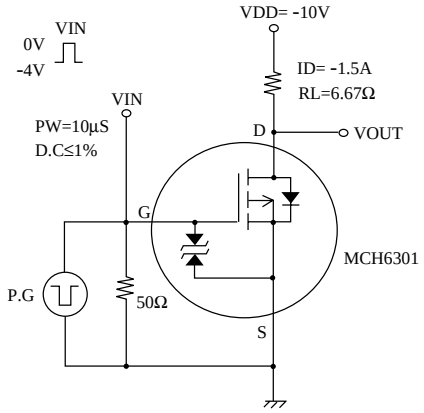
				unit
Drain to Source Voltage	VDSS		-20	V
Gate to Source Voltage	VGSS		±10	V
Drain Current(DC)	ID		-3.0	A
Drain Current(Pulse)	IDP	PW≤10μS, dutycycle≤1%	-12.0	A
Alowable power Dissipation	PD	Mounted on ceramic board(900mm^2×0.8mm)	1.5	W
Channel Temperature	Tch		150	°C
Storage Temperature	Tstg		−55 to +150	°C

Electrical Characteristics / Ta=25°C

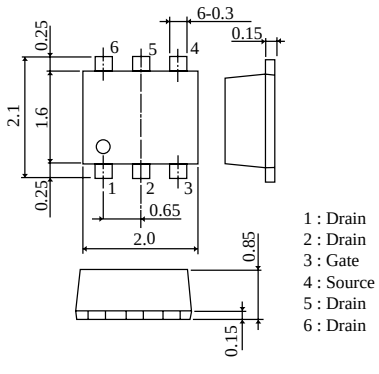
			min	typ	max	unit
Drain to Source Breakdown Voltage	V(BR)DSS	ID=-1mA , VGS=0	-20			V
Zero Gate Voltage Drain Current	IDSS	VDS=-20V , VGS=0			-1	μA
Gate to Source Leakage Current	IGSS	VGS=±8V , VDS=0			±10	μA
Cutoff Voltage	VGS(off)	VDS=-10V , ID=-1mA	-0.4		-1.4	V
Forward Transfer Admittance	| yfs |	VDS=-10V , ID=-1.5A	2.9	4.2		mS
Static Drain to Source on State Resistance	RDS(on)1	ID=-1.5A , VGS=-4V		90	115	mΩ
	RDS(on)2	ID=-0.7A , VGS=-2.5V		130	180	mΩ
Input Capacitance	Ciss	VDS=-10V , f=1MHz		500		pF
Output Capacitance	Coss	VDS=-10V , f=1MHz		145		pF
Rverse Transfer Cpacitance	Crss	VDS=-10V , f=1MHz		100		pF
Turn-ON Delay Time	td(on)	See Specified Test Circuit .		12		ns
Rise Time	tr			42		ns
Turn-oFF Delay Time	td(off)			39		ns
Fall Time	tf			57		ns
Total Gate Charge	Qg	VDS=-10V, VGS=-10V, ID=-3.0A		12.5		nC
Gate Source Charge	Qgs			1.2		nC
Gate Drain Charge	Qgd			1.8		nC
Diode Forward Voltage	VSD	IS = -3.0A , VGS = 0		- 0.83	- 1.5	V

Marking : JA

Switching Time Test Circuit



Case Outline MCPH6(unit:mm)



Spesifications and information herin are subject to change without notice.

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