

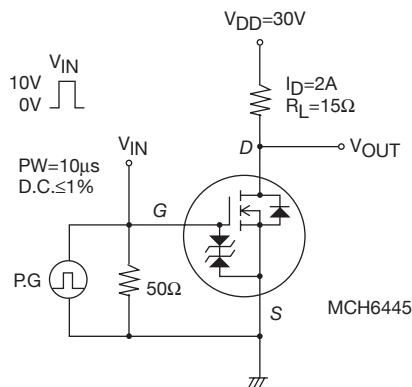
MCH6445

Electrical Characteristics at Ta=25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Drain-to-Source Breakdown Voltage	$V_{(BR)DSS}$	$I_D=1mA, V_{GS}=0V$	60			V
Zero-Gate Voltage Drain Current	$I_{DSS}$	$V_{DS}=60V, V_{GS}=0V$			1	$\mu A$
Gate-to-Source Leakage Current	$I_{GSS}$	$V_{GS}=\pm 16V, V_{DS}=0V$			$\pm 10$	$\mu A$
Cutoff Voltage	$V_{GS(off)}$	$V_{DS}=10V, I_D=1mA$	1.2		2.6	V
Forward Transfer Admittance	$ y_{fs} $	$V_{DS}=10V, I_D=2A$		3		S
Static Drain-to-Source On-State Resistance	$R_{DS(on)1}$	$I_D=2A, V_{GS}=10V$		60	78	$m\Omega$
	$R_{DS(on)2}$	$I_D=1A, V_{GS}=4.5V$		74	104	$m\Omega$
	$R_{DS(on)3}$	$I_D=1A, V_{GS}=4V$		81	114	$m\Omega$
Input Capacitance	$C_{iss}$	$V_{DS}=20V, f=1MHz$		505		pF
Output Capacitance	$C_{oss}$			57		pF
Reverse Transfer Capacitance	$C_{rss}$			37		pF
Turn-ON Delay Time	$t_{d(on)}$	See specified Test Circuit.		7.3		ns
Rise Time	$t_r$			9.8		ns
Turn-OFF Delay Time	$t_{d(off)}$			40		ns
Fall Time	$t_f$			24		ns
Total Gate Charge	$Q_g$	$V_{DS}=30V, V_{GS}=10V, I_D=4A$		10		nC
Gate-to-Source Charge	$Q_{gs}$			1.6		nC
Gate-to-Drain "Miller" Charge	$Q_{gd}$			2.1		nC
Diode Forward Voltage	$V_{SD}$	$I_S=4A, V_{GS}=0V$		0.82	1.2	V

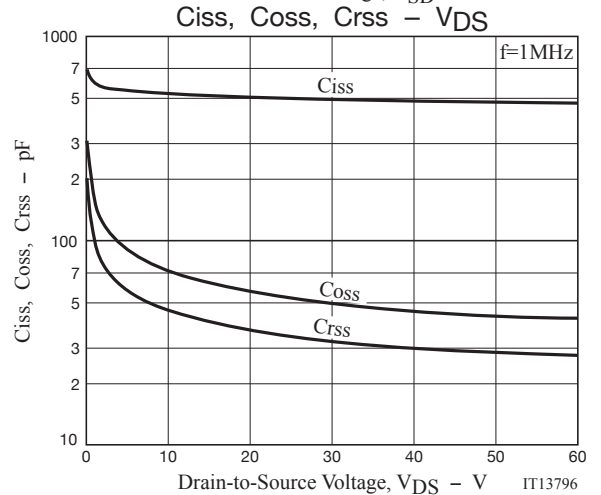
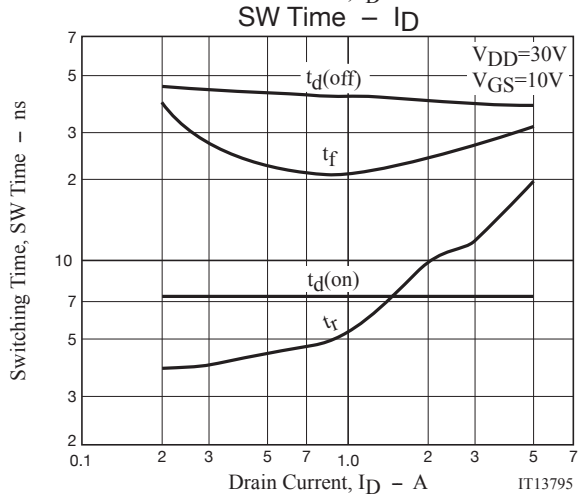
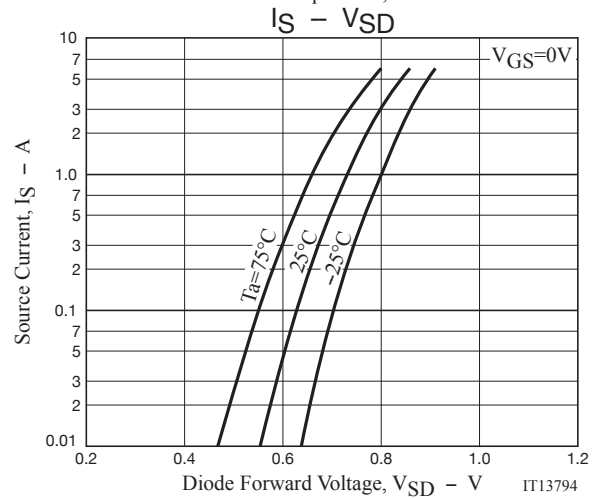
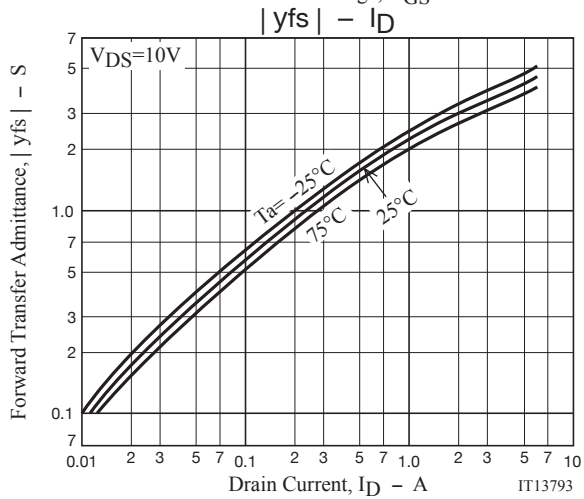
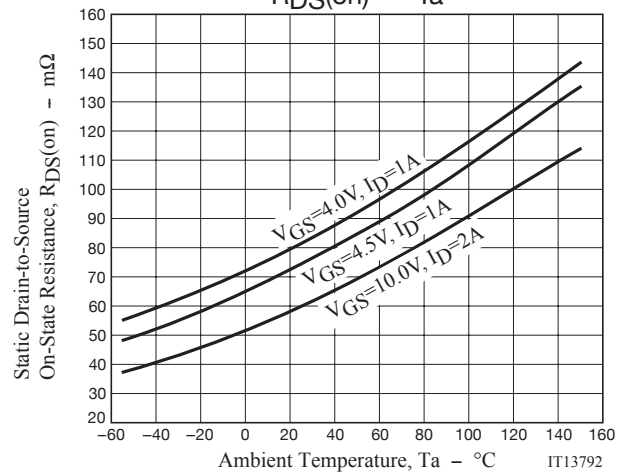
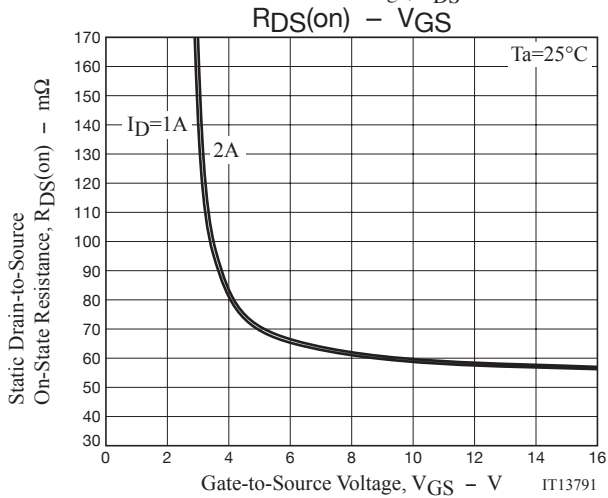
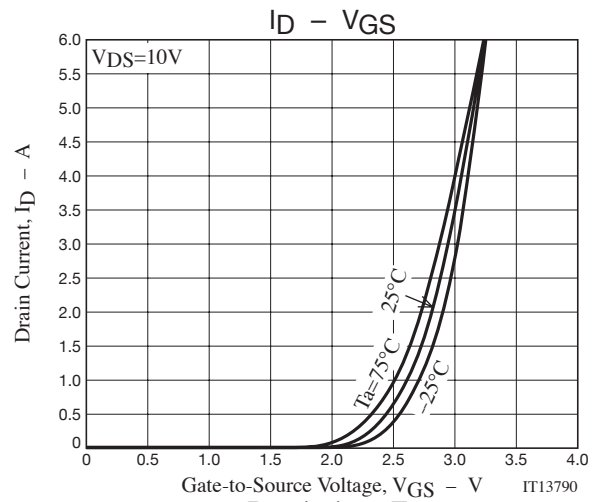
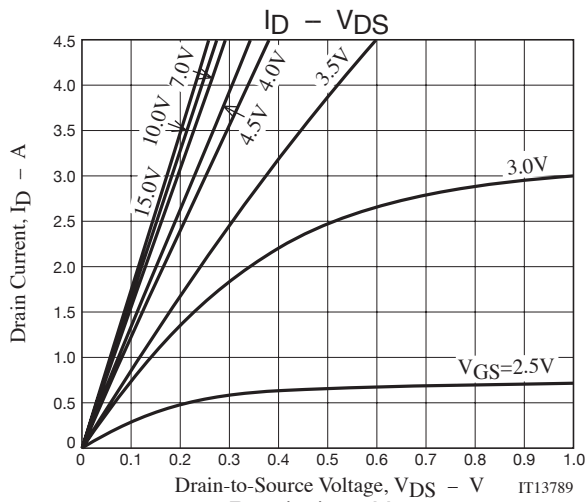
Product parametric performance is indicated in the Electrical Characteristics for the listed test conditions, unless otherwise noted. Product performance may not be indicated by the Electrical Characteristics if operated under different conditions.

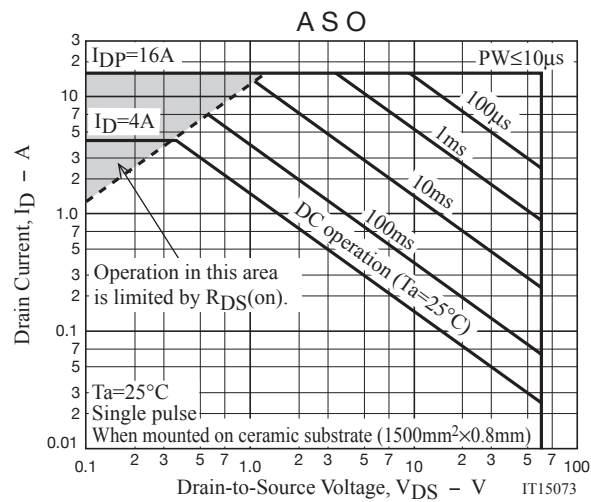
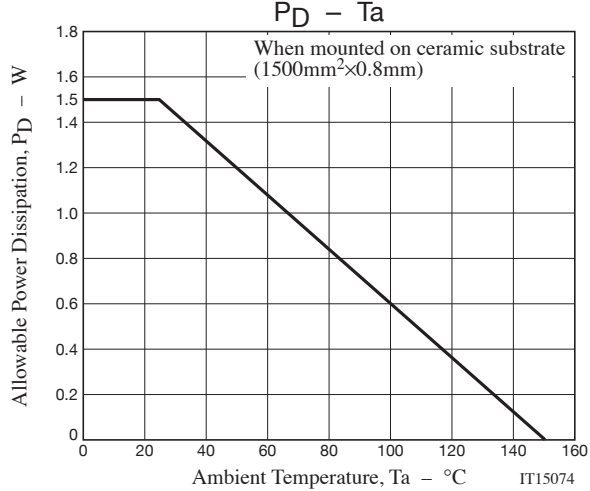
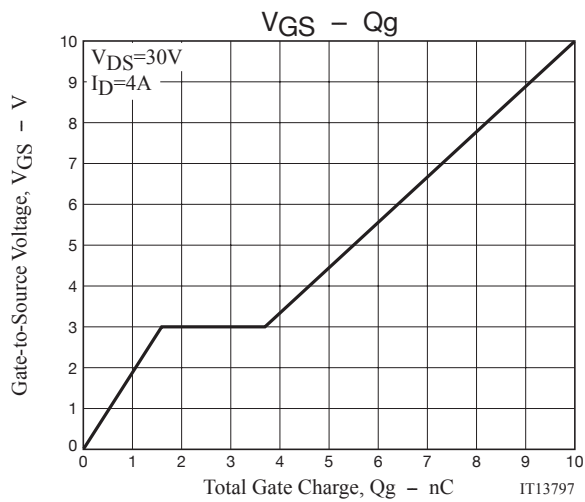
Switching Time Test Circuit



Ordering Information

Device	Package	Shipping	memo
MCH6445-TL-E	MCPH6	3,000pcs./reel	Pb-Free
MCH6445-TL-W			Pb-Free and Halogen Free

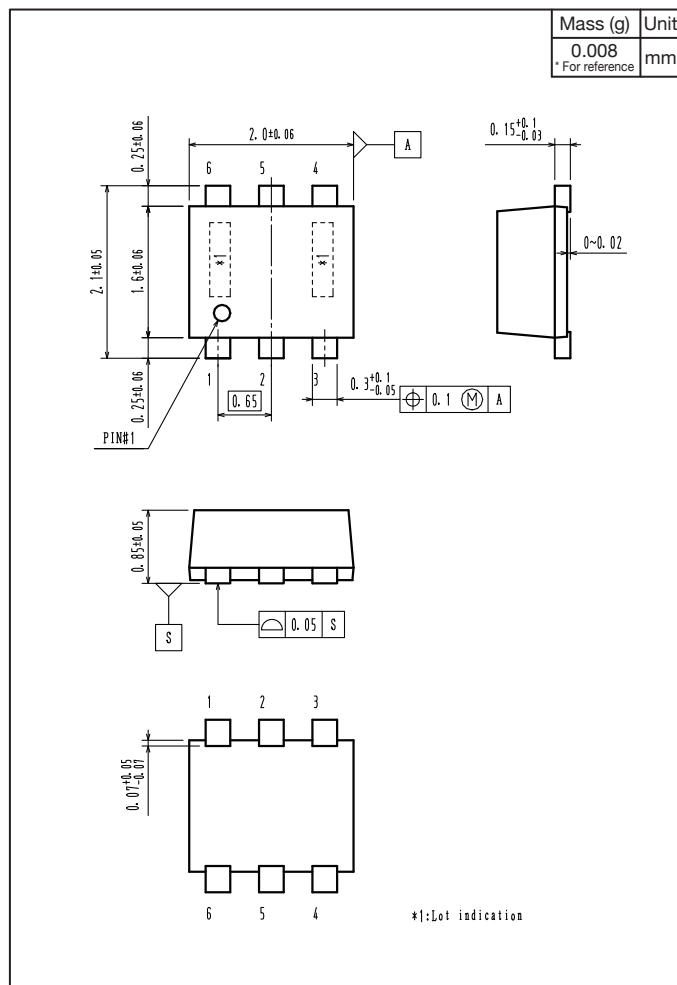




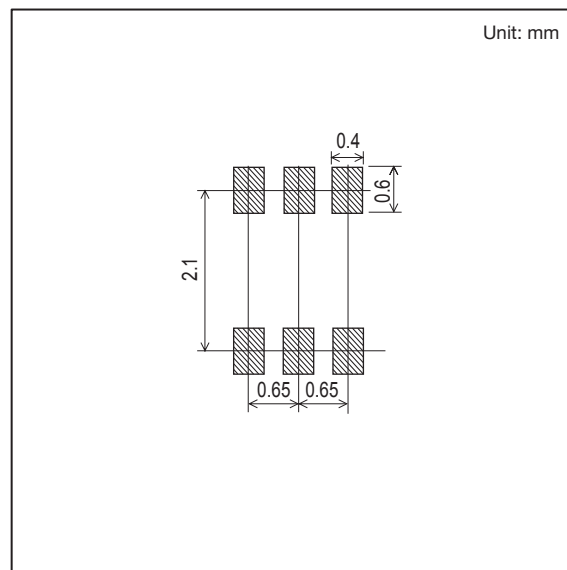
## MCH6445

## Outline Drawing

MCH6445-TL-E, MCH6445-TL-W



## Land Pattern Example



Note on usage : Since the MCH6445 is a MOSFET product, please avoid using this device in the vicinity of highly charged objects.

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