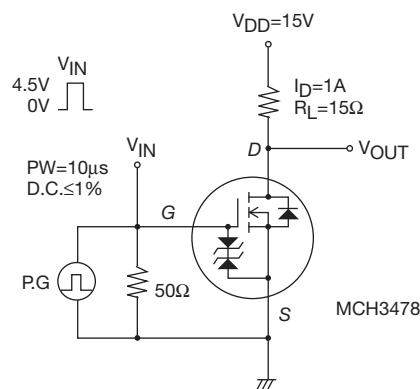


MCH3478

Electrical Characteristics at Ta=25°C

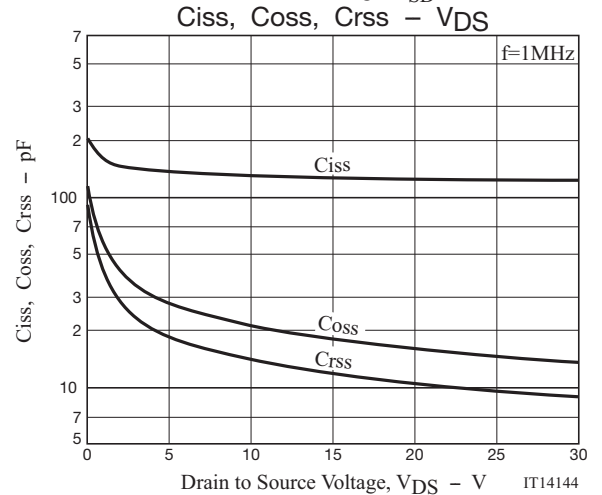
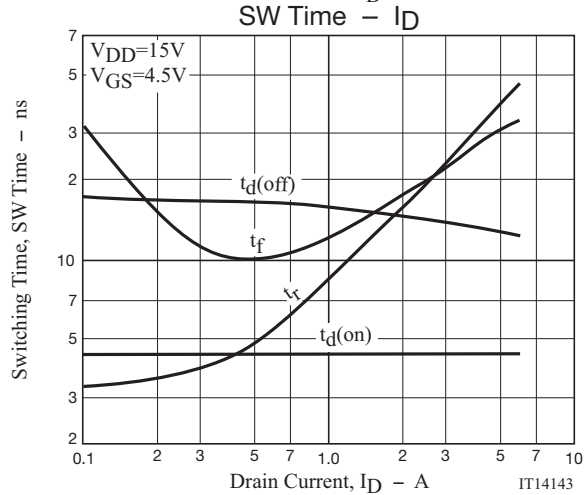
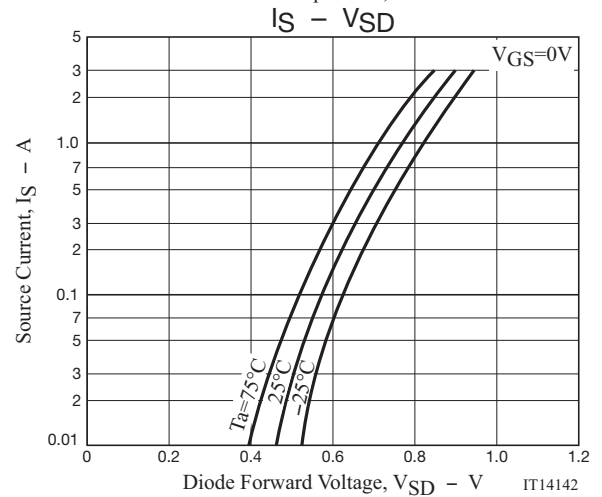
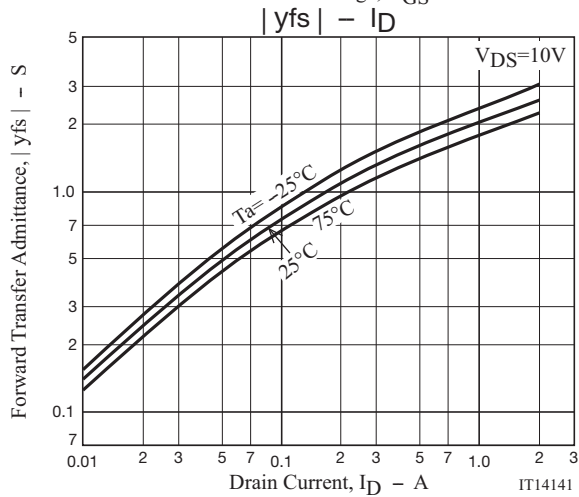
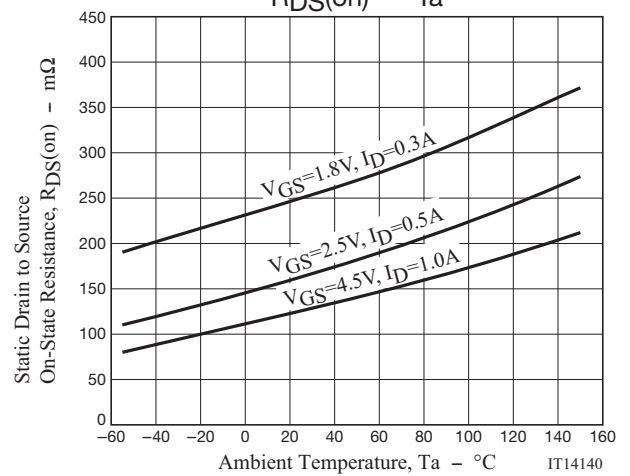
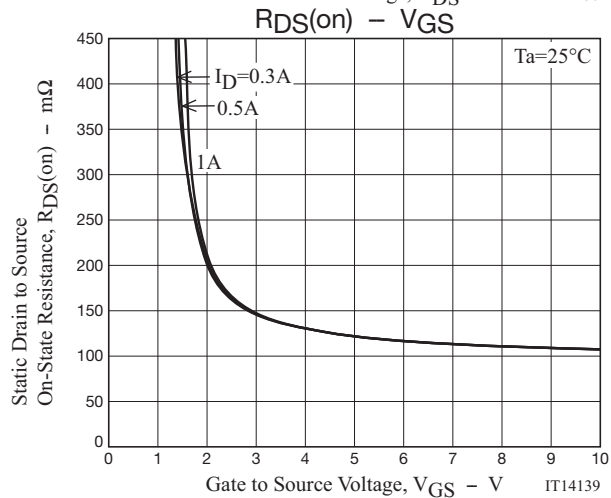
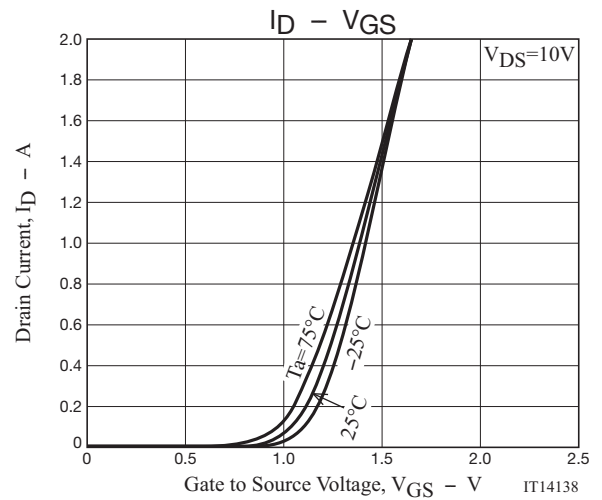
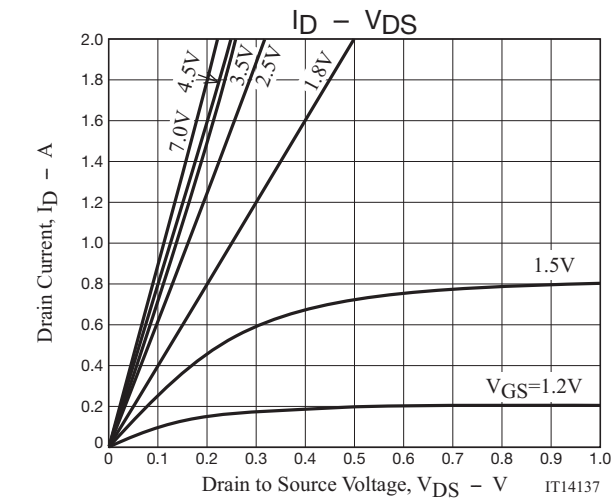
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Drain to Source Breakdown Voltage	$V_{(BR)DSS}$	$I_D=1mA, V_{GS}=0V$	30			V
Zero-Gate Voltage Drain Current	I_{DSS}	$V_{DS}=30V, V_{GS}=0V$			1	μA
Gate to Source Leakage Current	I_{GSS}	$V_{GS}=\pm 8V, V_{DS}=0V$			± 10	μA
Cutoff Voltage	$V_{GS(off)}$	$V_{DS}=10V, I_D=1mA$	0.4		1.3	V
Forward Transfer Admittance	$ y_{fs} $	$V_{DS}=10V, I_D=1A$	1.2	2.0		S
Static Drain to Source On-State Resistance	$R_{DS(on)1}$	$I_D=1A, V_{GS}=4.5V$		125	165	$m\Omega$
	$R_{DS(on)2}$	$I_D=0.5A, V_{GS}=2.5V$		165	235	$m\Omega$
	$R_{DS(on)3}$	$I_D=0.3A, V_{GS}=1.8V$		250	375	$m\Omega$
Input Capacitance	C_{iss}	$V_{DS}=10V, f=1MHz$		130		pF
Output Capacitance	C_{oss}			21		pF
Reverse Transfer Capacitance	C_{rss}			14		pF
Turn-ON Delay Time	$t_{d(on)}$	See specified Test Circuit.		4.4		ns
Rise Time	t_r			8.7		ns
Turn-OFF Delay Time	$t_{d(off)}$			16		ns
Fall Time	t_f			12		ns
Total Gate Charge	Q_g	$V_{DS}=10V, V_{GS}=4.5V, I_D=2A$		1.7		nC
Gate to Source Charge	Q_{gs}			0.25		nC
Gate to Drain "Miller" Charge	Q_{gd}			0.38		nC
Diode Forward Voltage	V_{SD}	$I_S=2A, V_{GS}=0V$		0.85	1.2	V

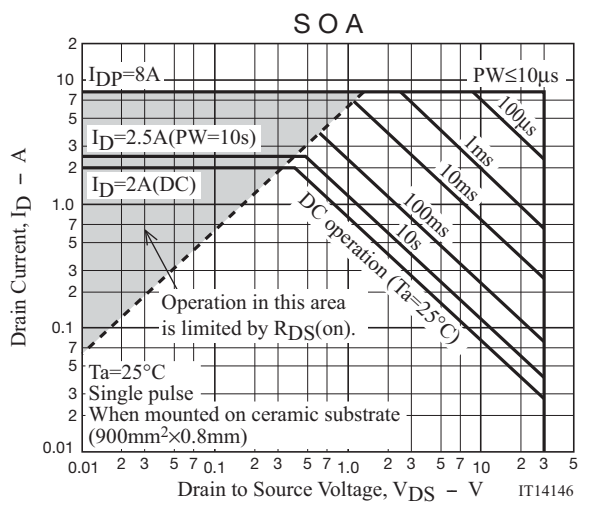
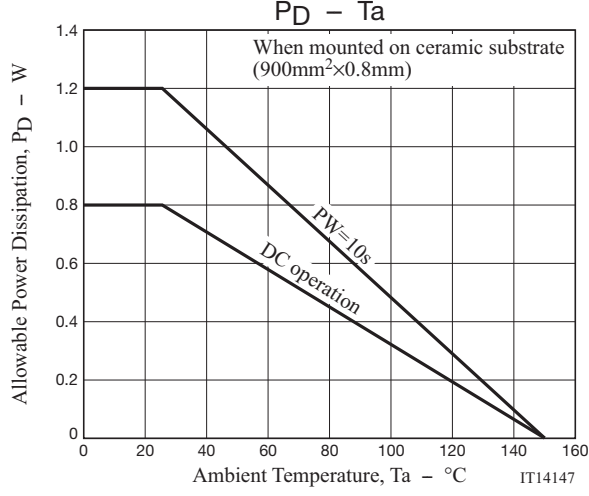
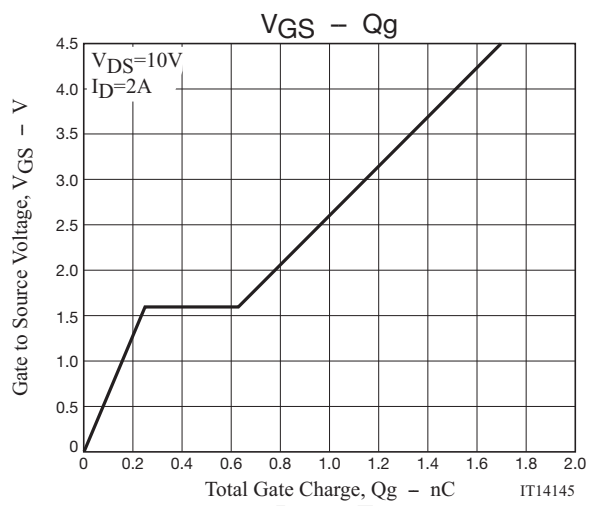
Switching Time Test Circuit



Ordering Information

Device	Package	Shipping	memo
MCH3478-TL-H	MCPH3	3,000pcs./reel	Pb Free and Halogen Free
MCH3478-TL-W			

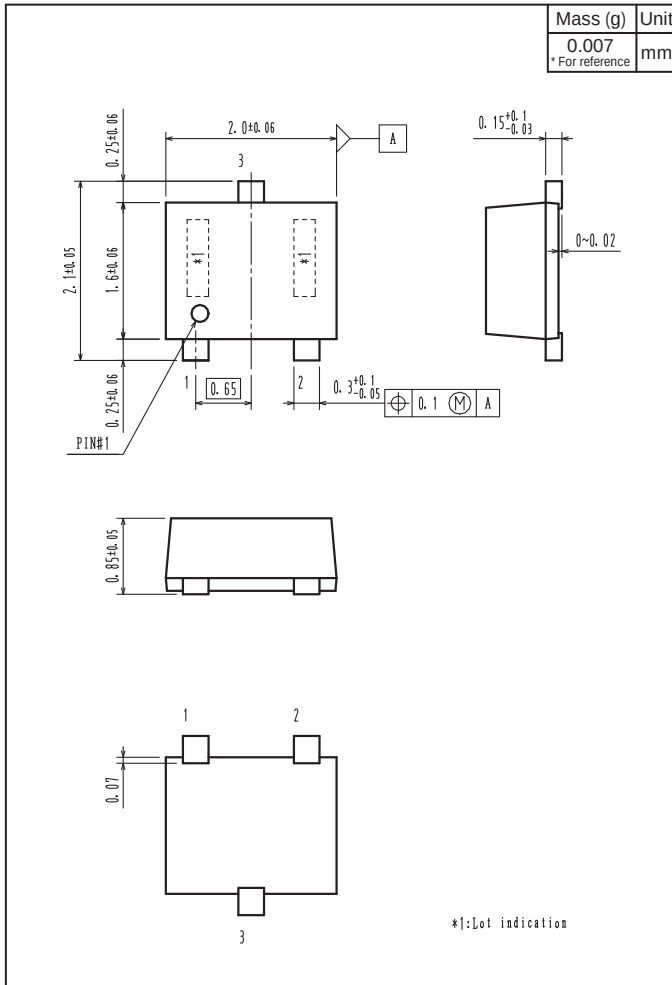




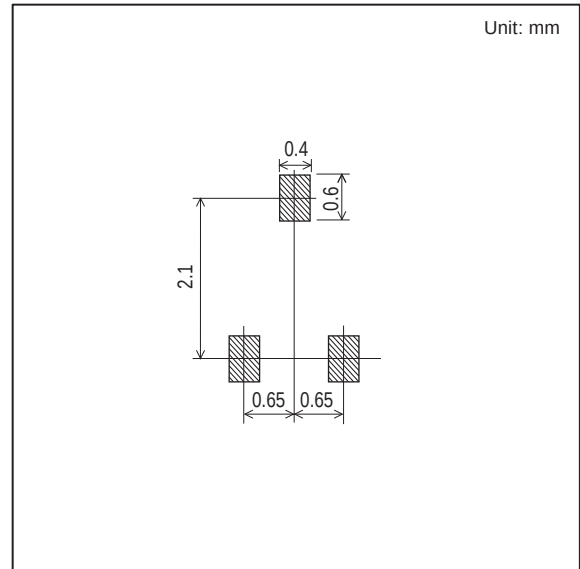
MCH3478

Outline Drawing

MCH3478-TL-H, MCH3478-TL-W



Land Pattern Example



Note on usage : Since the MCH3478 is a MOSFET product, please avoid using this device in the vicinity of highly charged objects.

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