MCH3484

Electrical Characteristics at Ta = 25°C

Parameter	Symbol	Conditions	Value min	Value typ	Value max	Unit
Drain to Source Breakdown Voltage	$V_{(BR)DSS}$	I_D=1mA, V_{GS}=0V	20			V
Zero-Gate Voltage Drain Current	I_{DSS}	V_{DS}=20V, V_{GS}=0V			1	μA
Gate to Source Leakage Current	I_{GSS}	V_{GS}=±4V, V_{DS}=0V			±10	μA
Gate Threshold Voltage	$V_{GS(th)}$	V_{DS}=10V, I_D=1mA	0.3		0.8	V
Forward Transconductance	g_{FS}	V_{DS}=10V, I_D=2A		5.6		S
Static Drain to Source On-State Resistance	$R_{DS(on)1}$	I_D=2A, V_{GS}=2.5V		33	40	mΩ
	$R_{DS(on)2}$	I_D=1A, V_{GS}=1.8V		37	49	mΩ
	$R_{DS(on)3}$	I_D=0.5A, V_{GS}=1.2V		79	119	mΩ
	$R_{DS(on)4}$	I_D=0.1A, V_{GS}=0.9V		165	330	mΩ
Input Capacitance	Ciss			630		pF
Output Capacitance	Coss	V_{DS}=10V, f=1MHz		75		pF
Reverse Transfer Capacitance	Crss			65		pF
Turn-ON Delay Time	t_d(on)			8.9		ns
Rise Time	t_r	See specified Test Circuit		49		ns
Turn-OFF Delay Time	t_d(off)			63		ns
Fall Time	t_f			57		ns
Total Gate Charge	Qg			11		nC
Gate to Source Charge	Qgs	V_{DS}=10V, V_{GS}=2.5V, I_D=4.5A		0.9		nC
Gate to Drain "Miller" Charge	Qgd			1.8		nC
Forward Diode Voltage	V_{SD}	I_S=4.5A, V_{GS}=0V		0.8	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

$I_D - V_{DS}$

$I_D - V_{GS}$

$R_{DS}(on) - V_{GS}$

$R_{DS}(on) - Ta$

$gFS - I_D$

$I_S - V_{SD}$

$R_{DS}(on) - I_D$

SW Time $- I_D$

Ciss, Coss, Crss – V$_{DS}$

V$_{GS}$ – Qg

S O A

P$_D$ – Ta

R$_{\theta JA}$ – Pulse Time
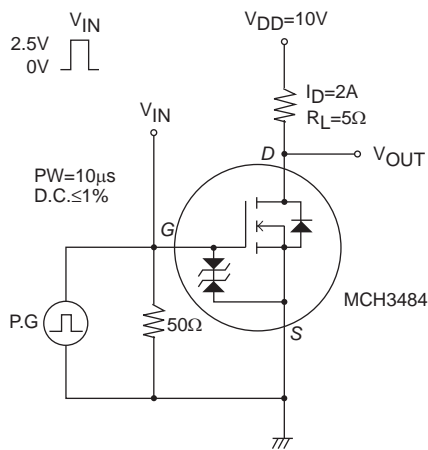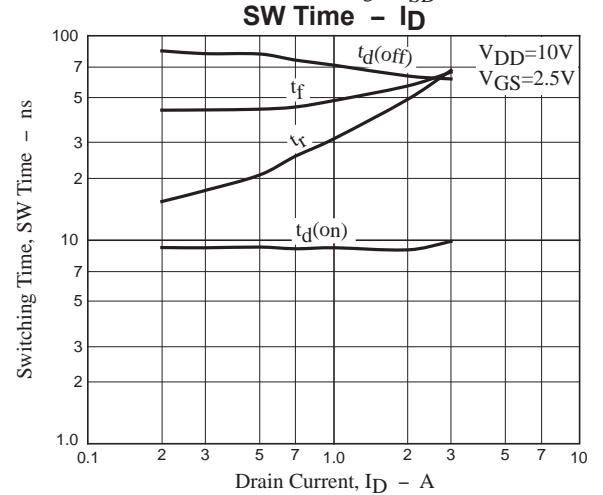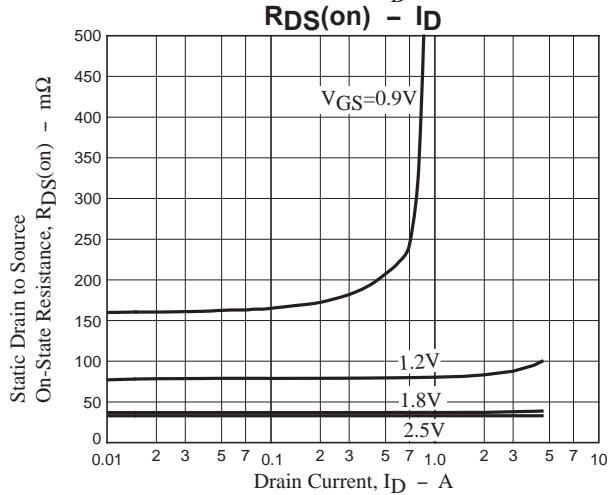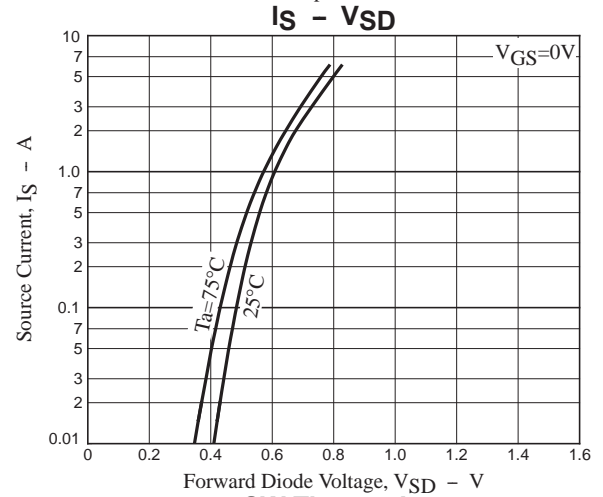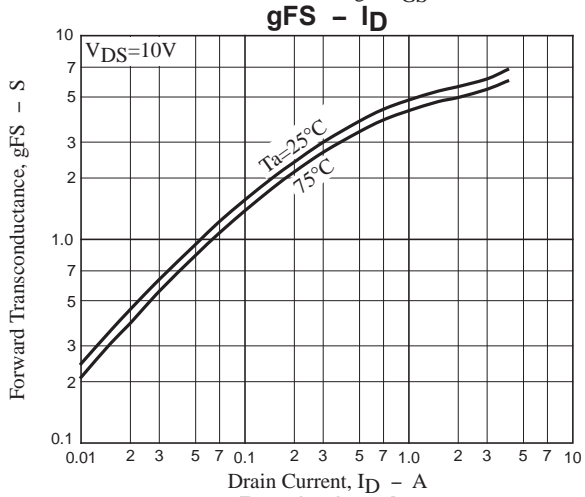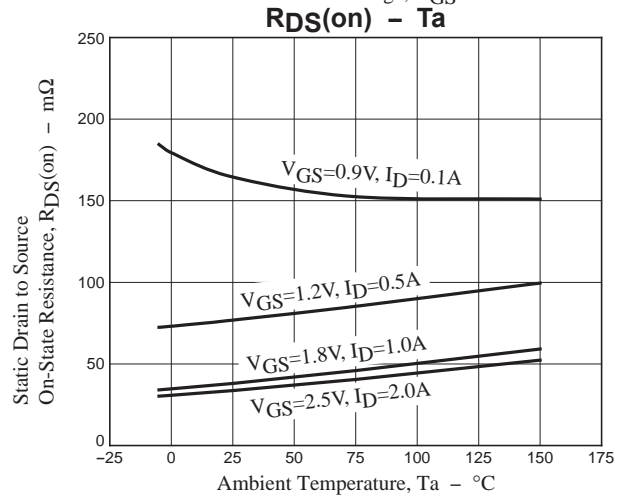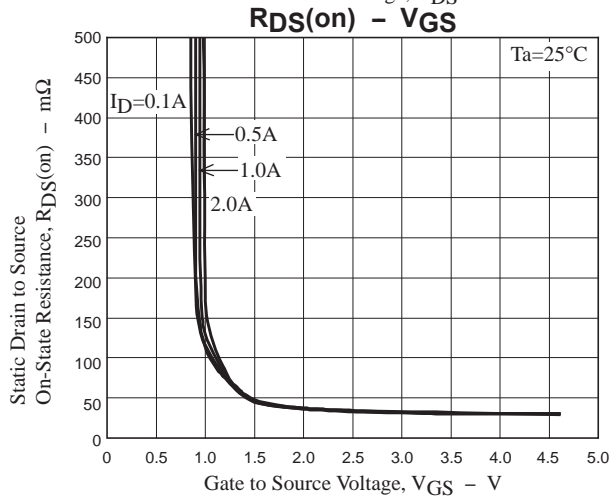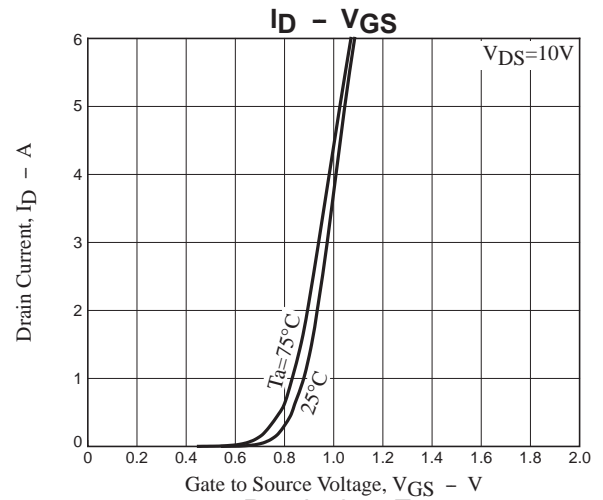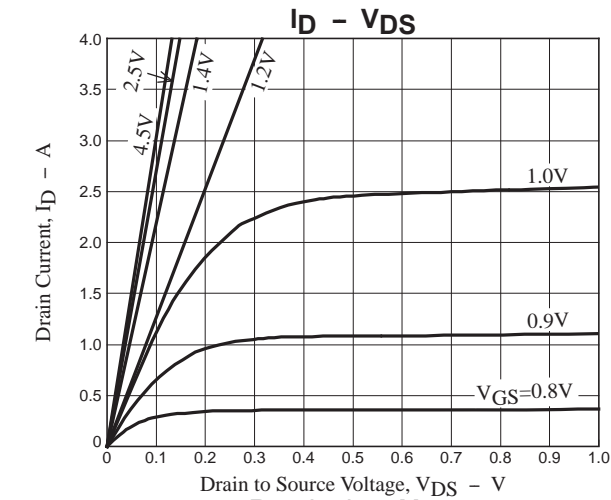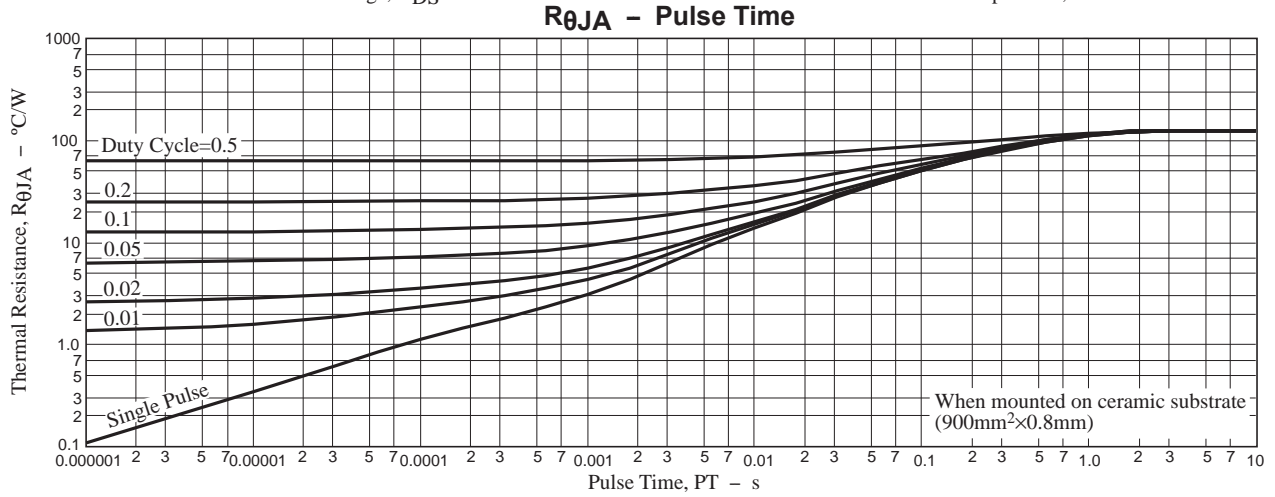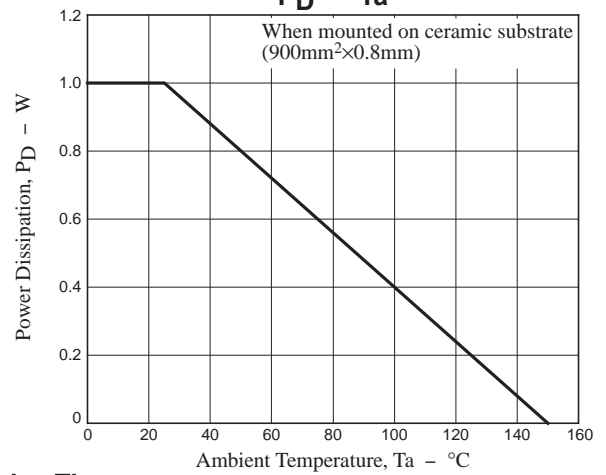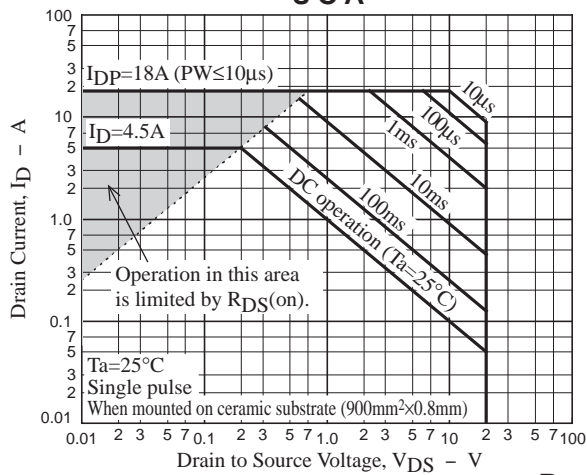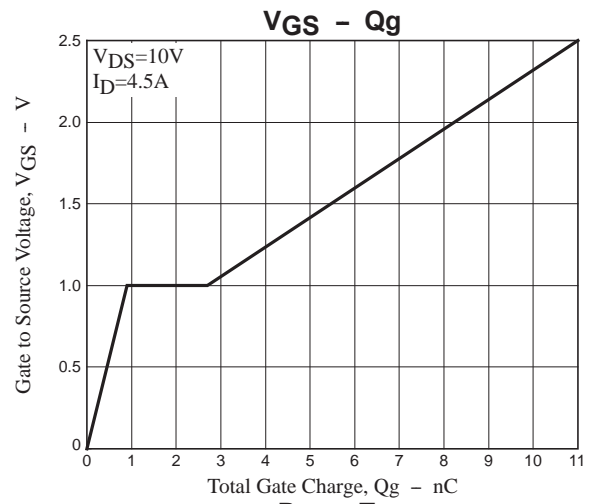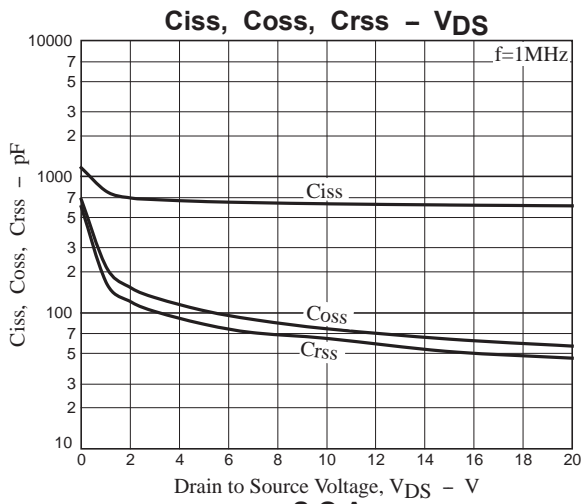
Package Dimensions

MCH3484-TL-H / MCH3484-TL-W

MCPH3

CASE 419AQ
ISSUE O

unit : mm

1 : Gate
2 : Source
3 : Drain

*|:Lot indication
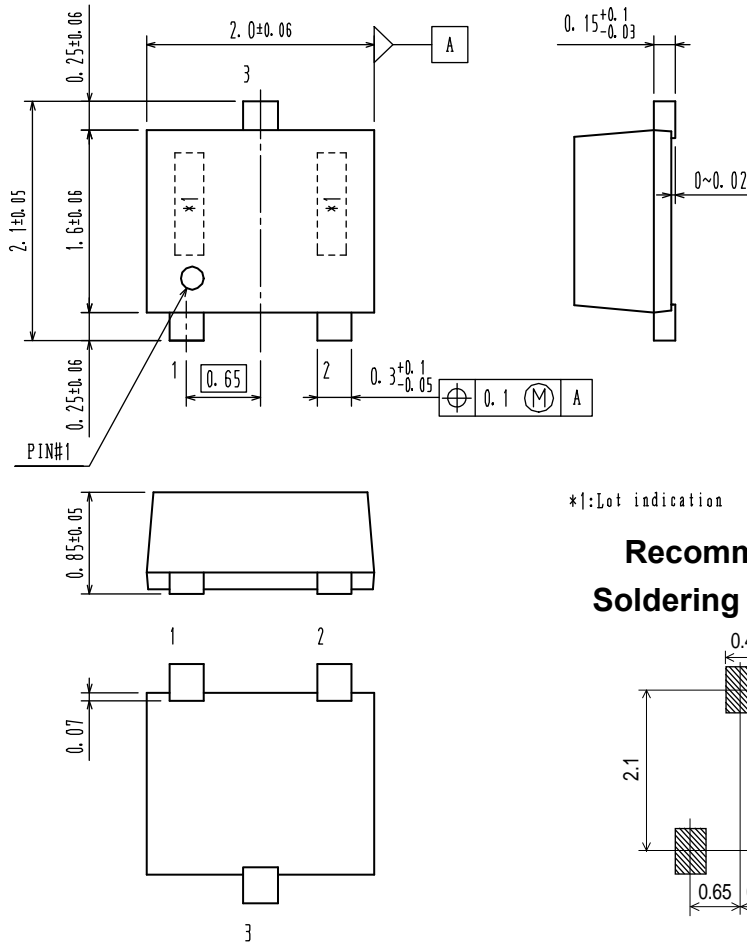
Recommended
Soldering Footprint
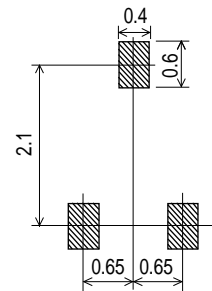
ORDERING INFORMATION

Device	Package	Shipping	Note
MCH3484-TL-H	MCPH3 SC-70,SOT-323	3,000 pcs. / reel	Pb-Free and Halogen Free
MCH3484-TL-W			

Note on usage : Since the MCH3484 is a MOSFET product, please avoid using this device in the vicinity
of highly charged objects.