

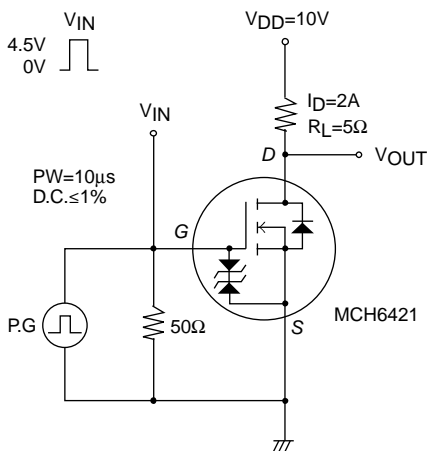
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ELECTRICAL CHARACTERISTICS at Ta = 25°C (Note 2)

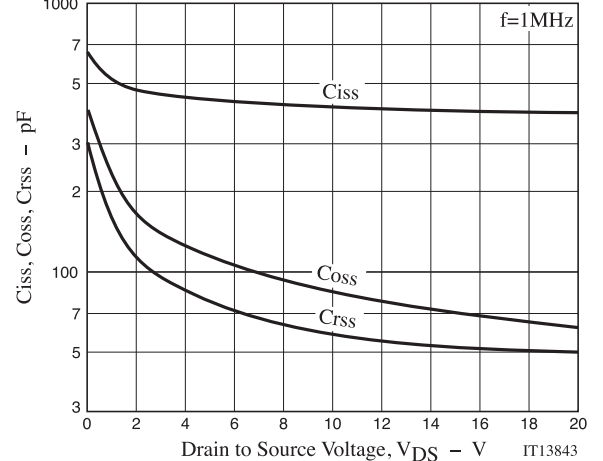
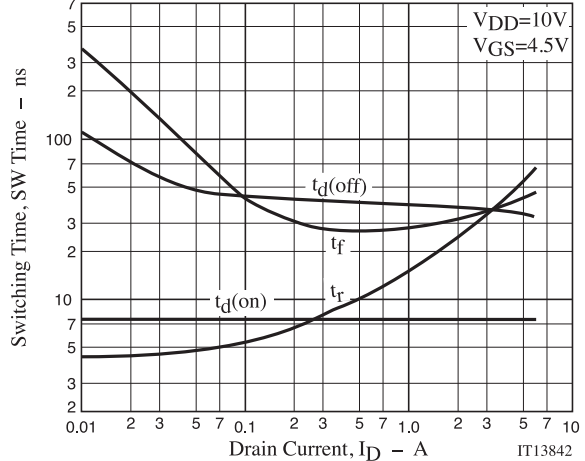
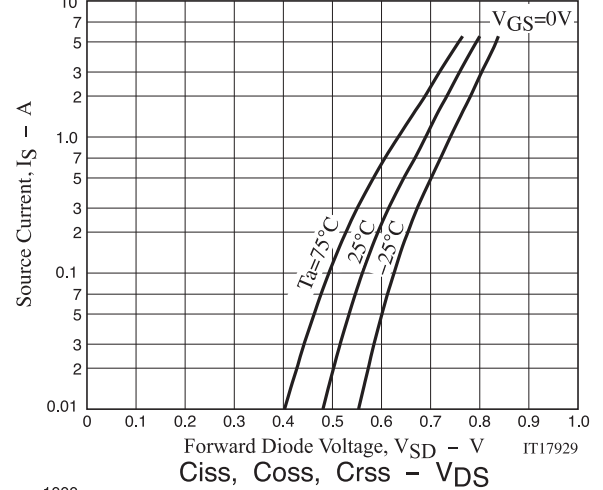
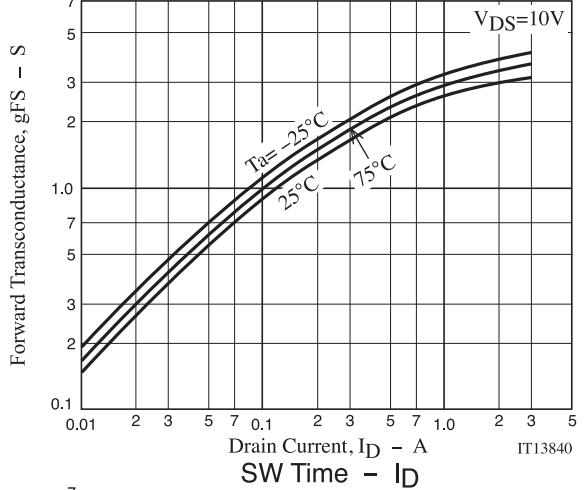
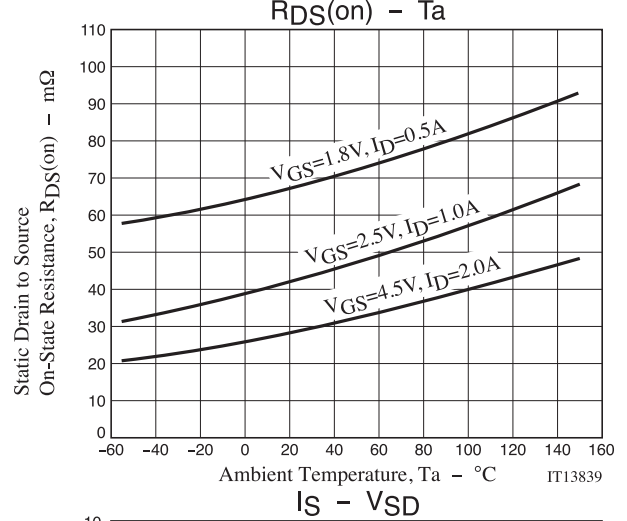
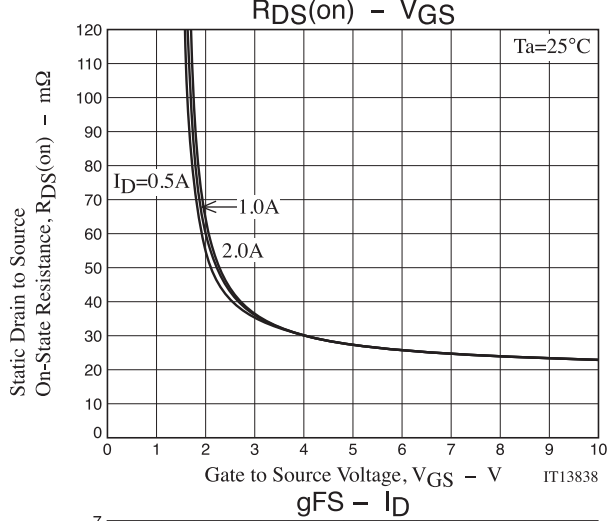
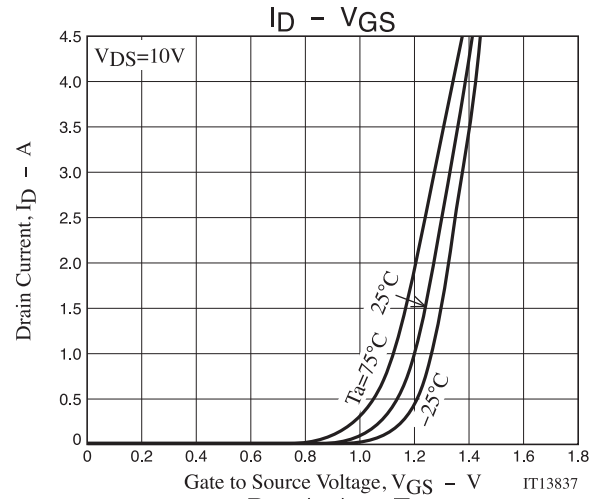
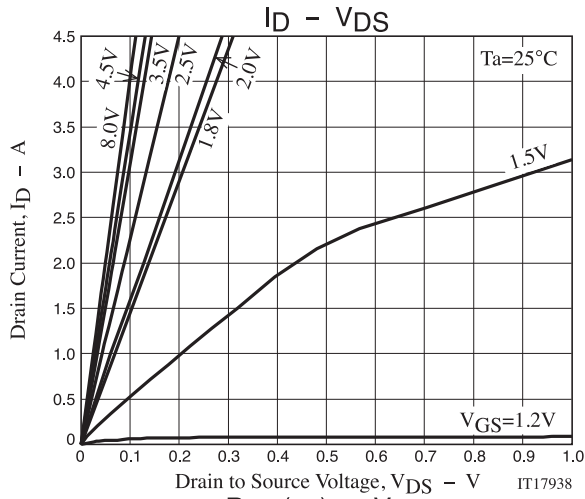
Parameter	Symbol	Conditions	Value			Unit
			min	typ	max	
Drain to Source Breakdown Voltage	V(BR)DSS	ID=1mA, VGS=0V	20			V
Zero-Gate Voltage Drain Current	IDSS	VDS=20V, VGS=0V			1	μA
Gate to Source Leakage Current	IGSS	VGS=±8V, VDS=0V			±10	μA
Gate Threshold Voltage	VGS(th)	VDS=10V, ID=1mA	0.4		1.3	V
Forward Transconductance	gFS	VDS=10V, ID=2A	2.0	3.8		S
Static Drain to Source On-State Resistance	RDS(on)1	ID=2A, VGS=4.5V		29	38	mΩ
	RDS(on)2	ID=1A, VGS=2.5V		43	61	mΩ
	RDS(on)3	ID=0.5A, VGS=1.8V		69	99	mΩ
Input Capacitance	Ciss	VDS=10V, f=1MHz		410		pF
Output Capacitance	Coss			84		pF
Reverse Transfer Capacitance	Crss			59		pF
Turn-ON Delay Time	td(on)	See specified Test Circuit		7.5		ns
Rise Time	tr			26		ns
Turn-OFF Delay Time	td(off)			38		ns
Fall Time	tf			32		ns
Total Gate Charge	Qg	VDS=10V, VGS=4.5V, ID=5.5A		5.1		nC
Gate to Source Charge	Qgs			0.7		nC
Gate to Drain "Miller" Charge	Qgd			1.7		nC
Forward Diode Voltage	VSD	IS=5.5A, VGS=0V		0.8	1.2	V

Note 2 : 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.

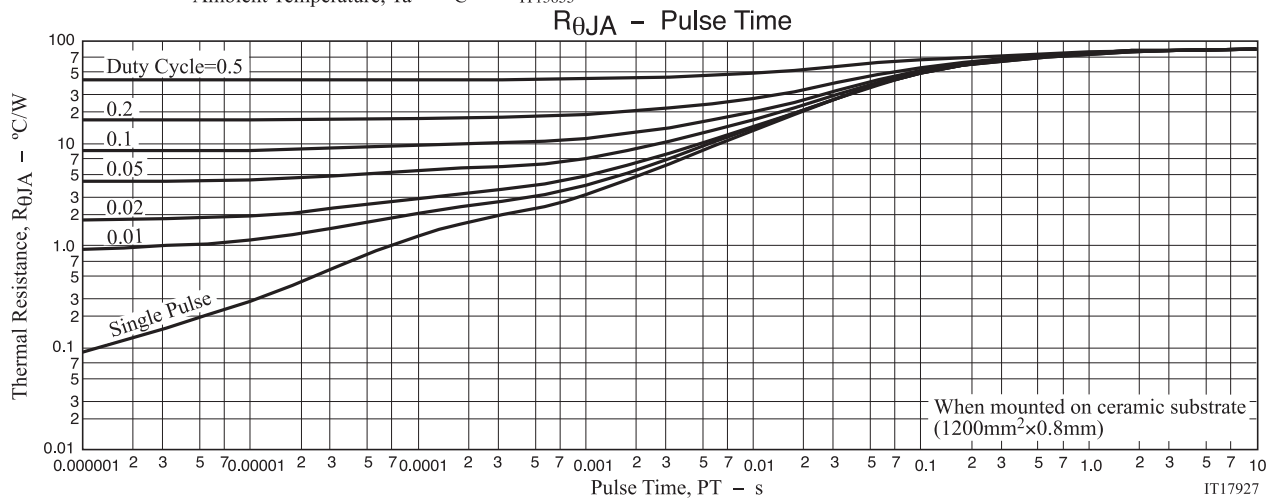
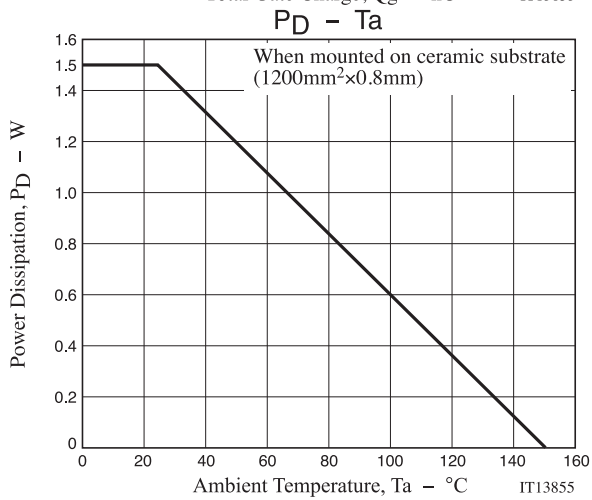
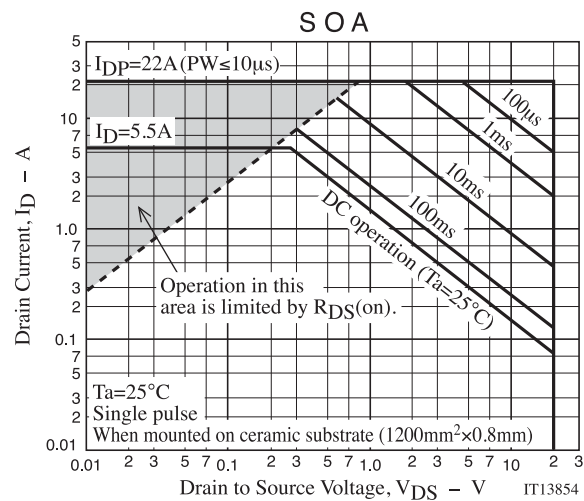
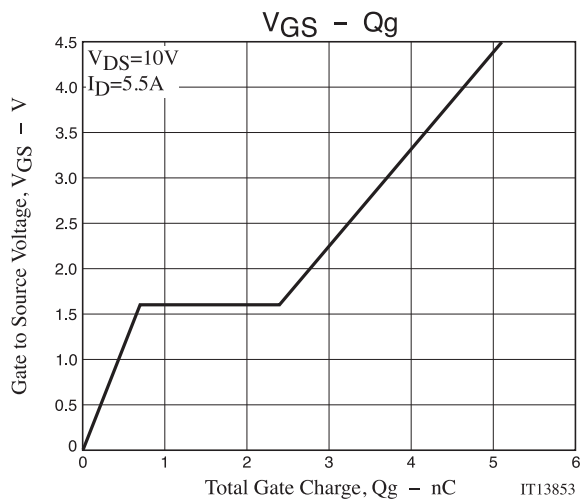
Switching Time Test Circuit



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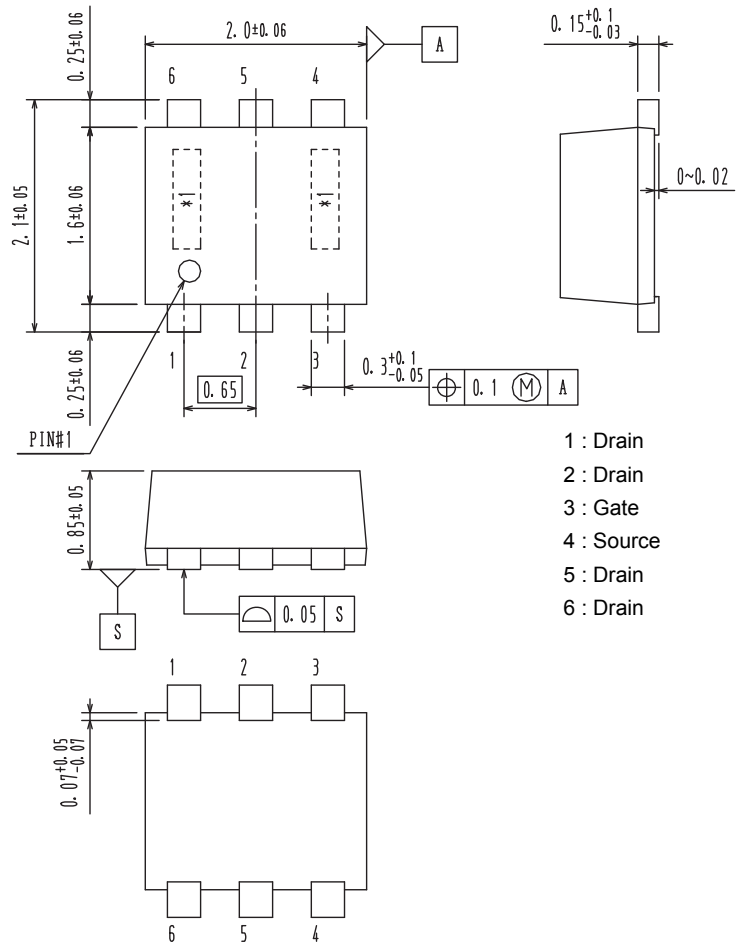


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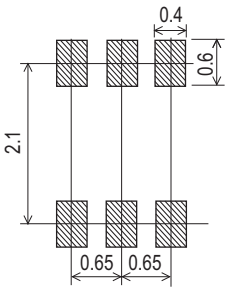
PACKAGE DIMENSIONS

unit : mm

SC-88FL / MCPH6
CASE 419AS
ISSUE O



Recommended Soldering Footprint



ORDERING INFORMATION

Device	Marking	Package	Shipping (Qty / Packing)
MCH6421-TL-E	KV	SC-88FL / MCPH6 (Pb-Free)	3,000 / Tape & Reel
MCH6421-TL-W		SC-88FL / MCPH6 (Pb-Free / Halogen Free)	

† For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specifications Brochure, BRD8011/D. http://www.onsemi.com/pub_link/Collateral/BRD8011-D.PDF

Note on usage : Since the MCH6421 is a MOSFET product, please avoid using this device in the vicinity of highly charged objects.

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