

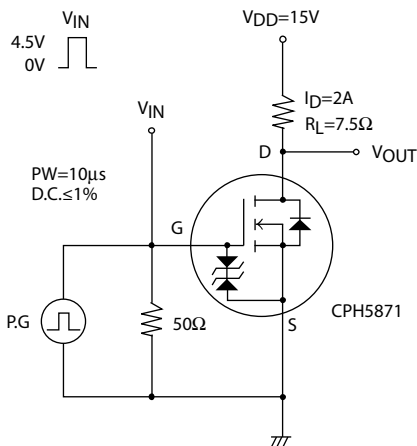
CPH5871

Electrical Characteristics at Ta = 25°C

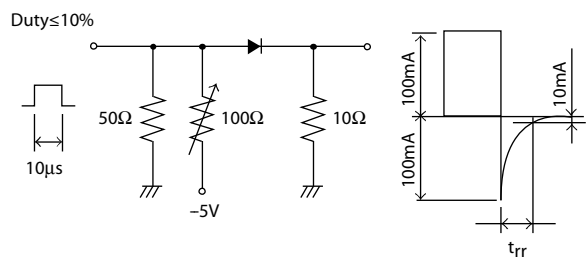
Parameter	Symbol	Conditions	Value			Unit
			min	typ	max	
[MOSFET]						
Drain to Source Breakdown Voltage	V(BR)DSS	ID=1mA, VGS=0V	30			V
Zero-Gate Voltage Drain Current	IDSS	VDS=30V, VGS=0V			1	μA
Gate to Source Leakage Current	IGSS	VGS=±8V, VDS=0V			±10	μA
Gate Threshold Voltage	VGS(th)	VDS=10V, ID=1mA	0.4		1.3	V
Forward Transconductance	gFS	VDS=10V, ID=2A	2.0	3.4		S
Static Drain to Source On-State Resistance	RDS(on)1	ID=2A, VGS=4.5V		40	52	mΩ
	RDS(on)2	ID=1A, VGS=2.5V		53	74	mΩ
	RDS(on)3	ID=0.5A, VGS=1.8V		82	132	mΩ
Input Capacitance	Ciss	VDS=10V, f=1MHz		430		pF
Output Capacitance	Coss			59		pF
Reverse Transfer Capacitance	Crss			38		pF
Turn-ON Delay Time	tD(on)	See specified Test Circuit		10		ns
Rise Time	tr			41		ns
Turn-OFF Delay Time	tD(off)			36		ns
Fall Time	tf			37		ns
Total Gate Charge	Qg	VDS=15V, VGS=4.5V, ID=3.5A		4.7		nC
Gate to Source Charge	Qgs			0.8		nC
Gate to Drain "Miller" Charge	Qgd			1.1		nC
Forward Diode Voltage	VSD	IS=3.5A, VGS=0V		0.8	1.2	V
[SBD]						
Reverse Voltage	VR	IR=0.5mA	30			V
Forward Voltage	VF1	IF=0.7A		0.45	0.5	V
	VF2	IF=1A		0.48	0.53	V
Reverse Current	IR	VR=16V			15	μA
Interterminal Capacitance	C	VR=10V, f=1MHz, 1cycle		27		pF
Reverse Recovery Time	trr	IF= IR=100mA, See specified Test Circuit			10	ns

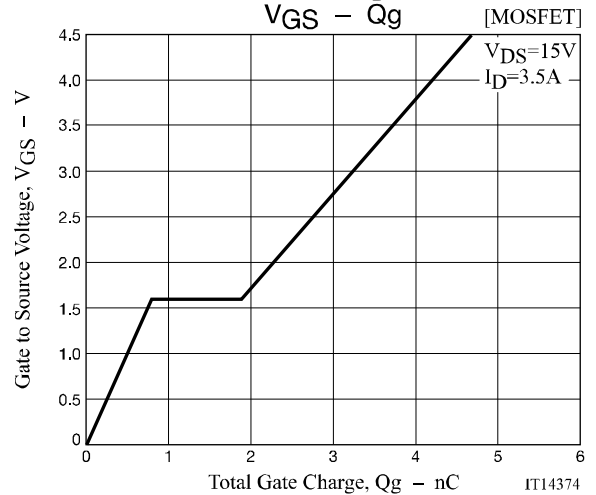
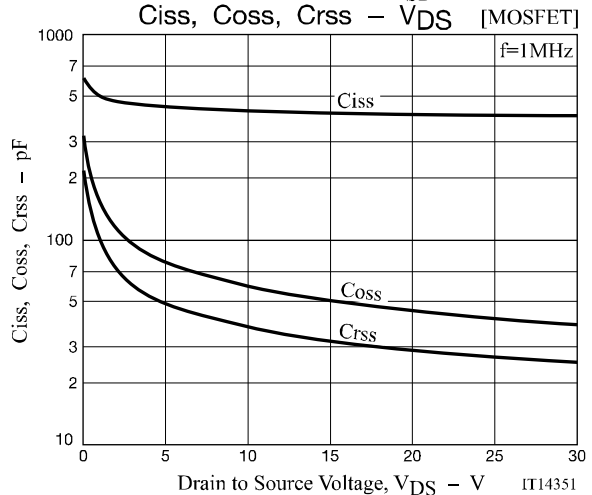
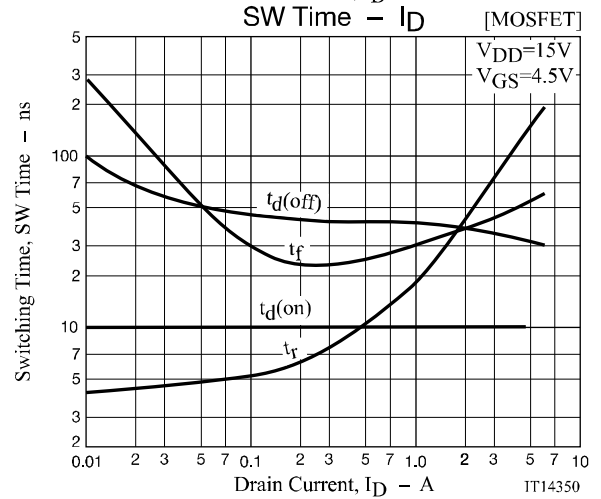
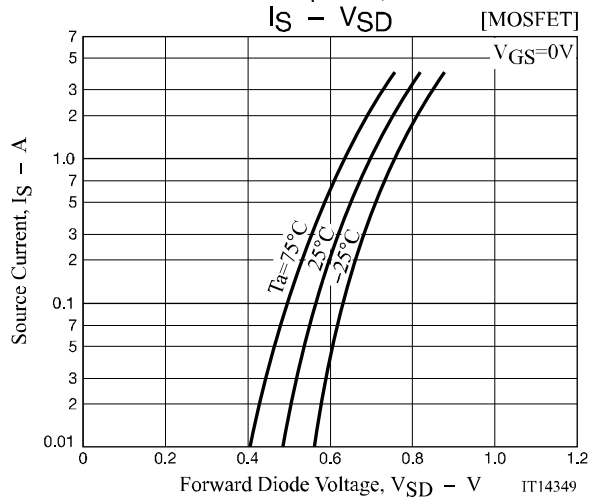
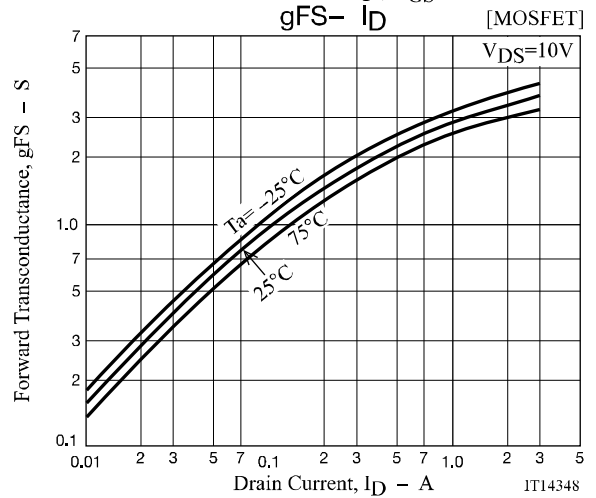
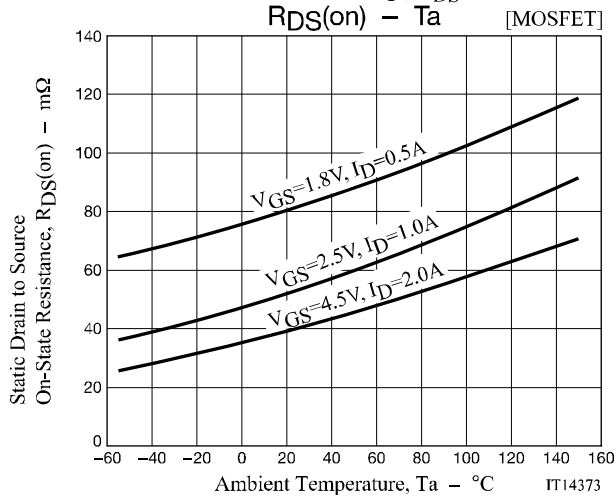
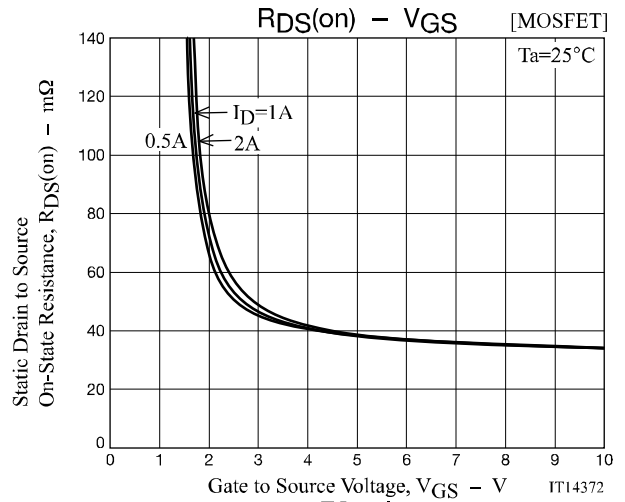
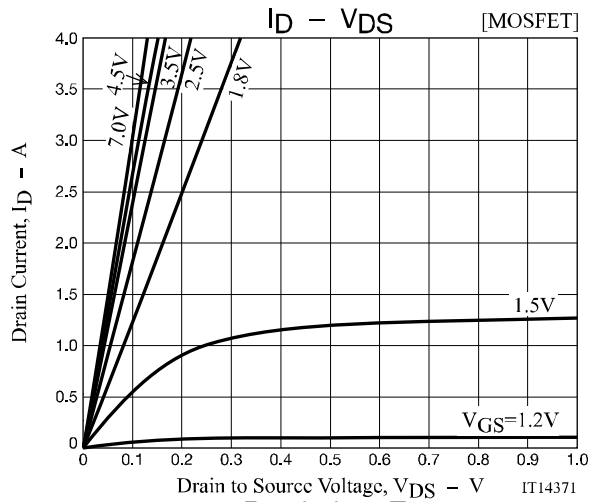
Product parametric performance is indicated in the Electrical Characteristics for the listed test conditions, unless otherwise noted. Product performance may not be indicated by the Electrical Characteristics if operated under different conditions.

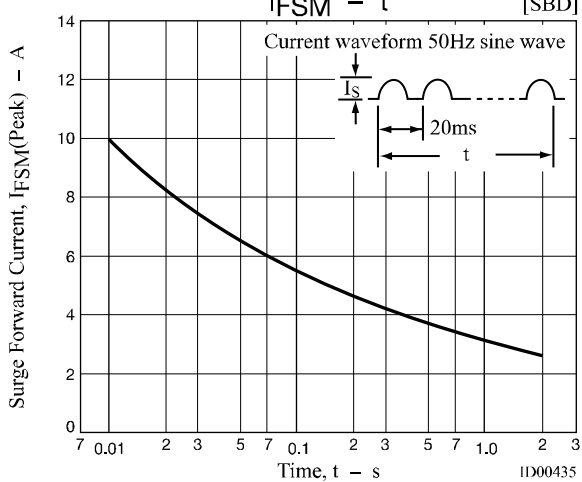
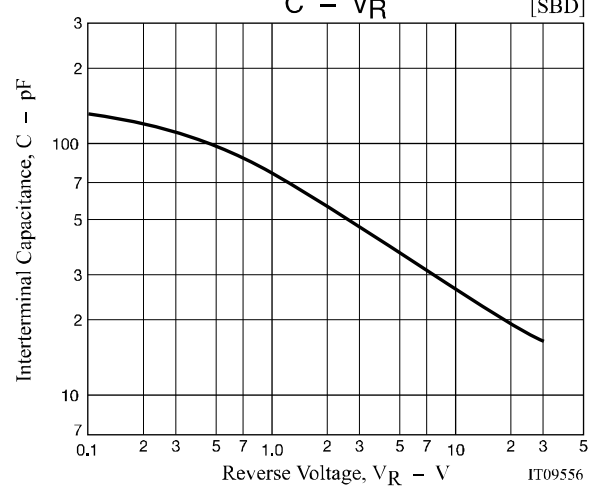
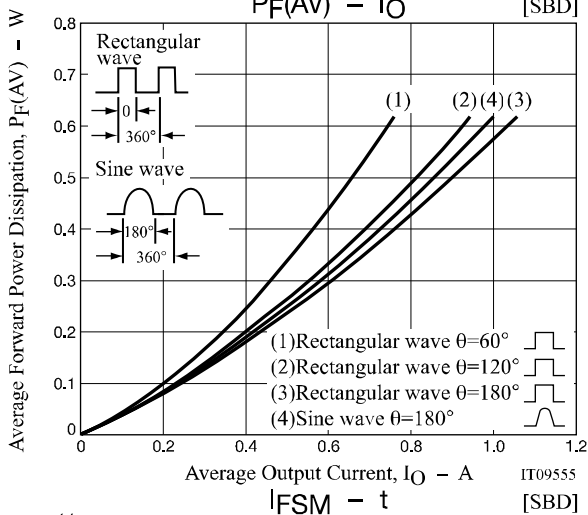
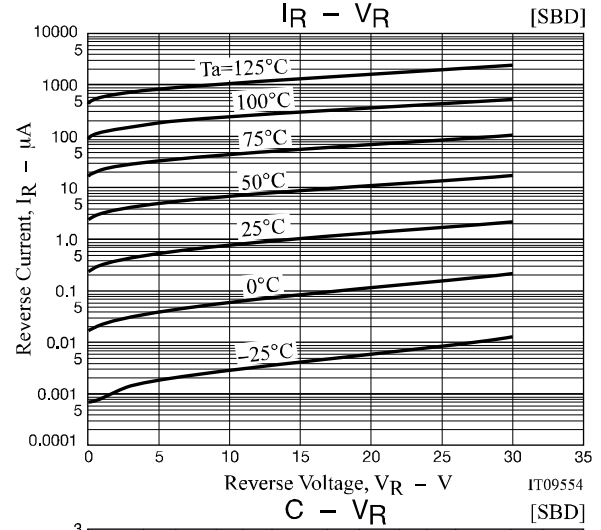
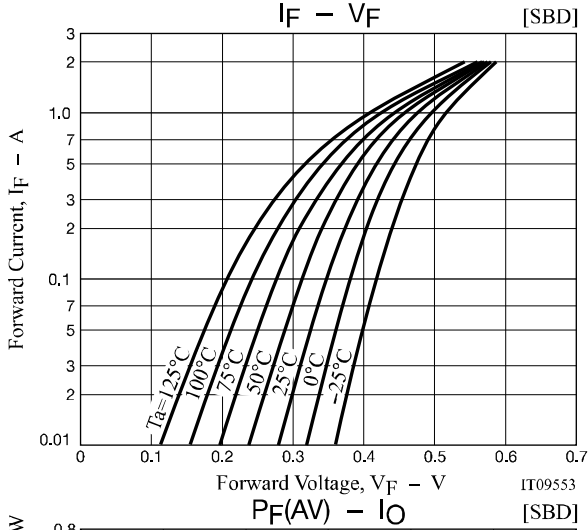
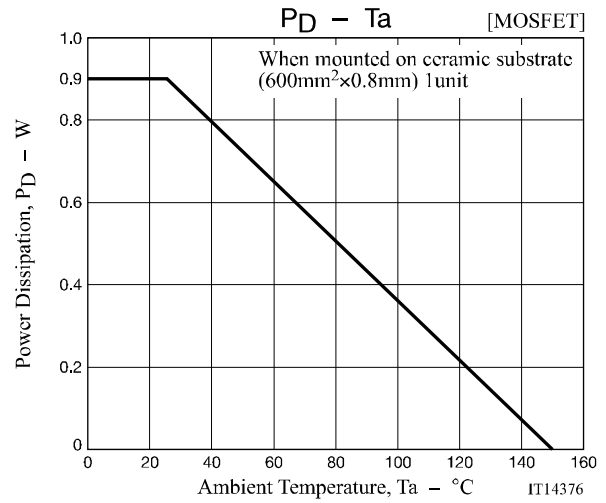
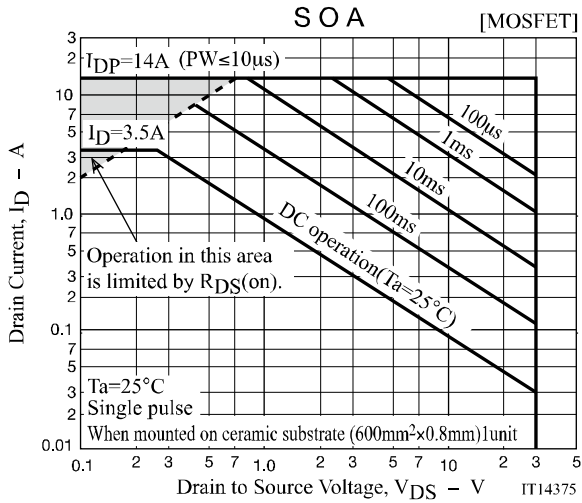
Switching Time Test Circuit (MOSFET)

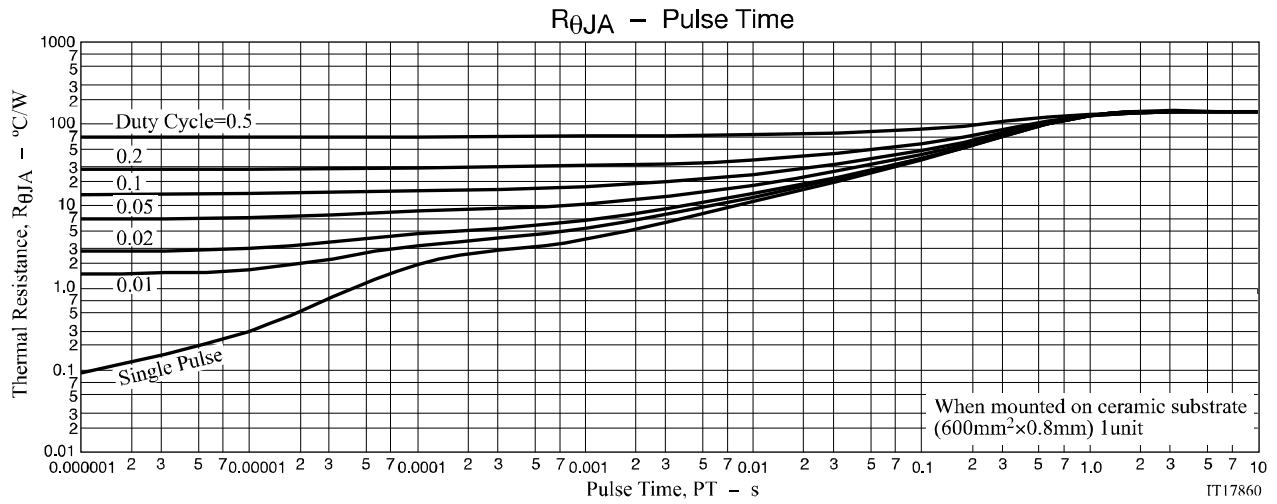


t_{rr} Test Circuit (SBD)









Package Dimensions

CPH5871-TL-H / CPH5871-TL-W

CPH5

CASE 318BC

ISSUE O

unit : mm

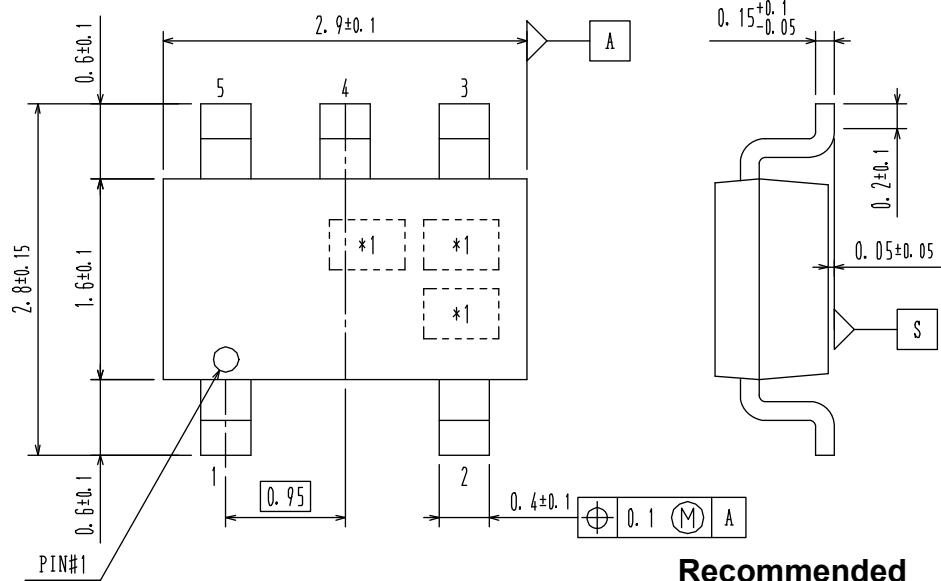
1 : Cathode

2 : Drain

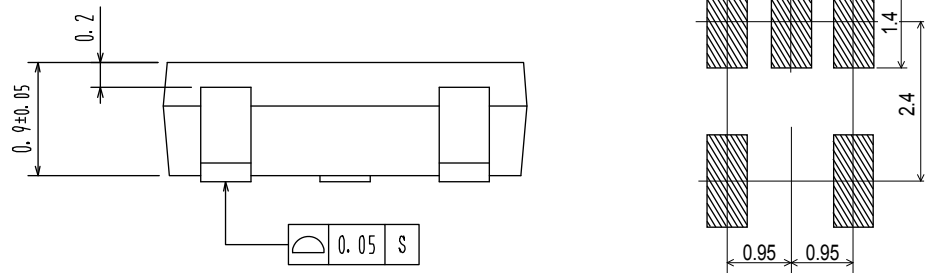
3 : Gate

4 : Source

5 : Anode



Recommended Soldering Footprint



*1: Lot indication

ORDERING INFORMATION

Device	Package	Shipping	Note
CPH5871-TL-H	CPH5 SC-74A, SOT-25	3,000 pcs. / Tape & Reel	Pb-Free and Halogen Free
CPH5871-TL-W			

† 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 CPH5871 is a MOSFET product, please avoid using this device in the vicinity of highly charged objects.

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