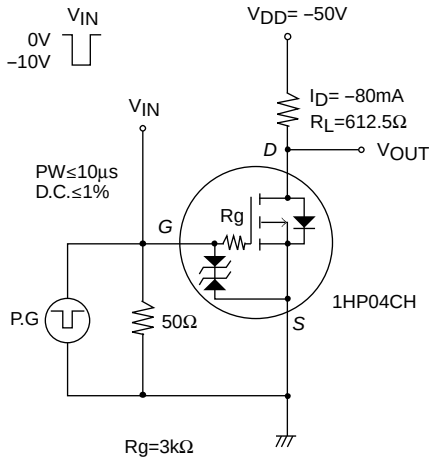
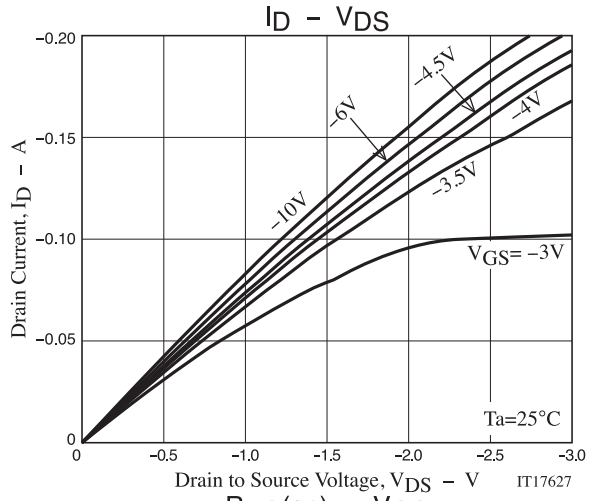
ELECTRICAL CHARACTERISTICS at Ta = 25°C (Note 2)

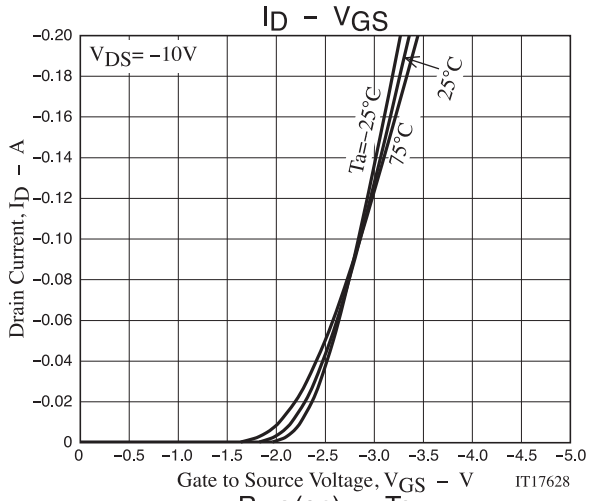
Parameter	Symbol	Conditions	Value			Unit
			min	typ	max	
Drain to Source Breakdown Voltage	$V_{(BR)DSS}$	I_D=−1mA, V_{GS}=0V	−100			V
Zero-Gate Voltage Drain Current	I_{DSS}	V_{DS}=−100V, V_{GS}=0V			−1	μA
Gate to Source Leakage Current	I_{GSS}	V_{GS}=±16V, V_{DS}=0V			±10	μA
Gate Threshold Voltage	$V_{GS}(th)$	V_{DS}=−10V, I_D=−100μA	−1.2		−2.6	V
Forward Transconductance	g_{FS}	V_{DS}=−10V, I_D=−80mA		170		mS
Static Drain to Source On-State Resistance	$R_{DS}(on)1$	I_D=−80mA, V_{GS}=−10V		12.5	18	Ω
	$R_{DS}(on)2$	I_D=−40mA, V_{GS}=−4V		14	21	Ω
Input Capacitance	Ciss	V_{DS}=−20V, f=1MHz		14		pF
Output Capacitance	Coss			2.8		pF
Reverse Transfer Capacitance	Crss			0.9		pF
Turn-ON Delay Time	$t_d(on)$	See specified Test Circuit		21		ns
Rise Time	t_r			18		ns
Turn-OFF Delay Time	$t_d(off)$			200		ns
Fall Time	t_f			81		ns
Total Gate Charge	Qg	V_{DS}=−50V, V_{GS}=−10V, I_D=−170mA		0.9		nC
Gate to Source Charge	Qgs			0.14		nC
Gate to Drain “Miller” Charge	Qgd			0.27		nC
Forward Diode Voltage	V_{SD}	I_S=−170mA, V_{GS}=0V		−0.88	−1.2	V

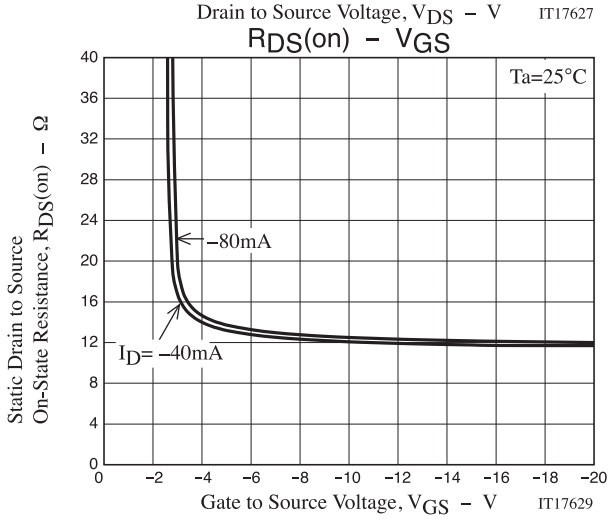
Note 2 : Product parametric performance is indicated in the Electrical Characteristics for the listed test conditions, unless otherwise noted. Product performance may not be indicated by the Electrical Characteristics if operated under different conditions.

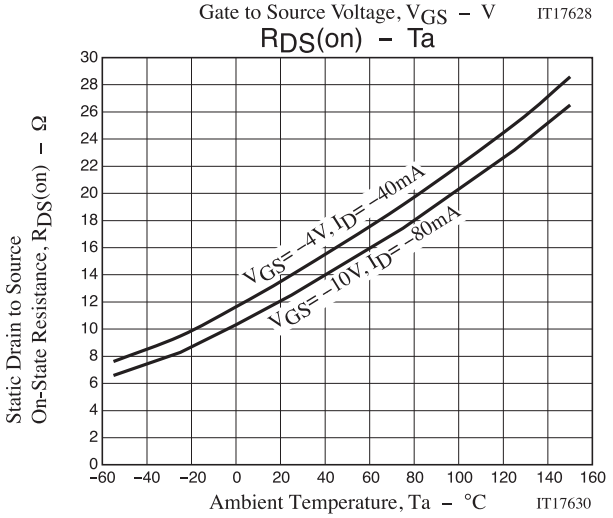
Switching Time Test Circuit

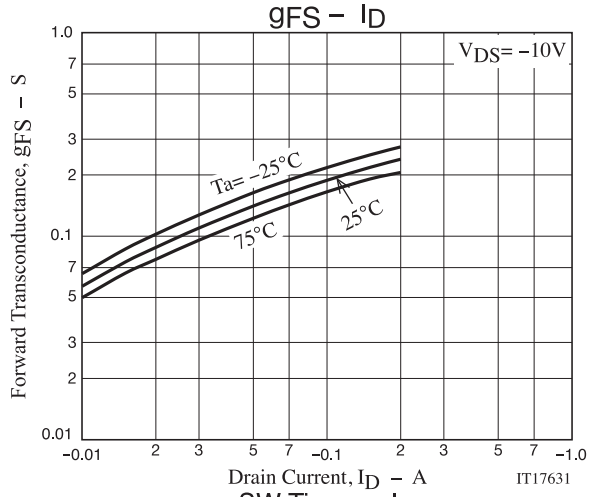


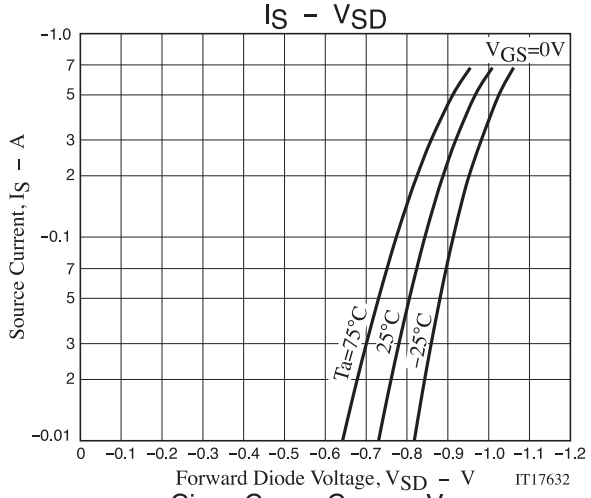


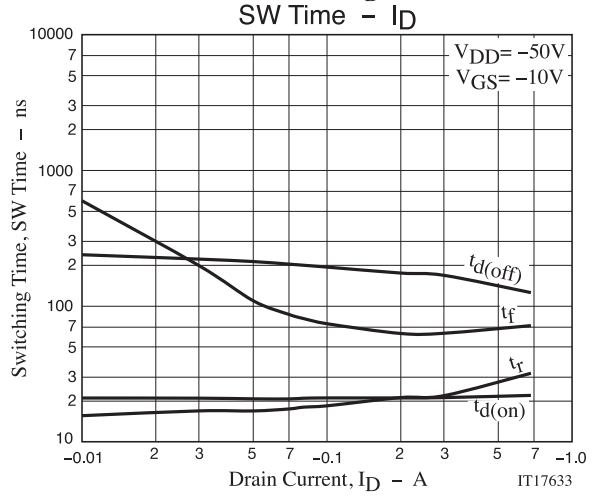


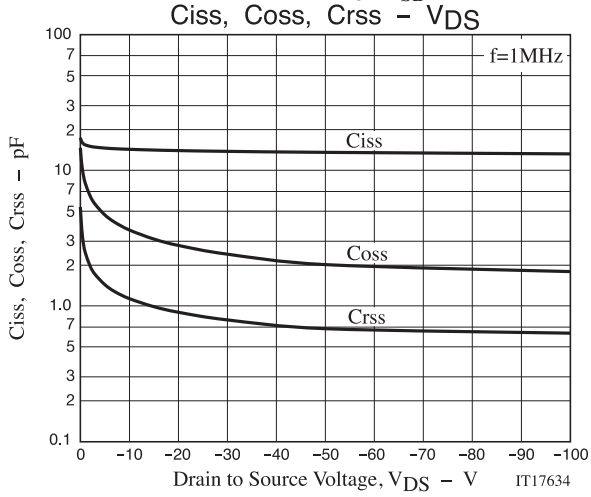


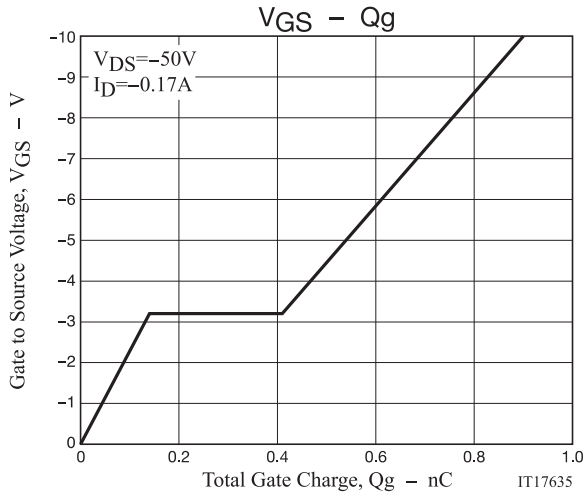


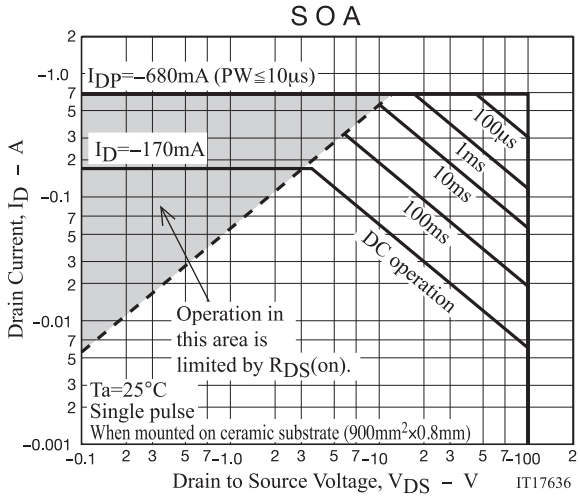


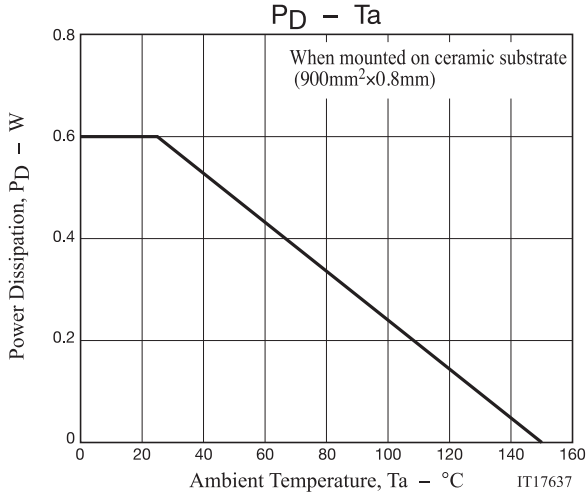


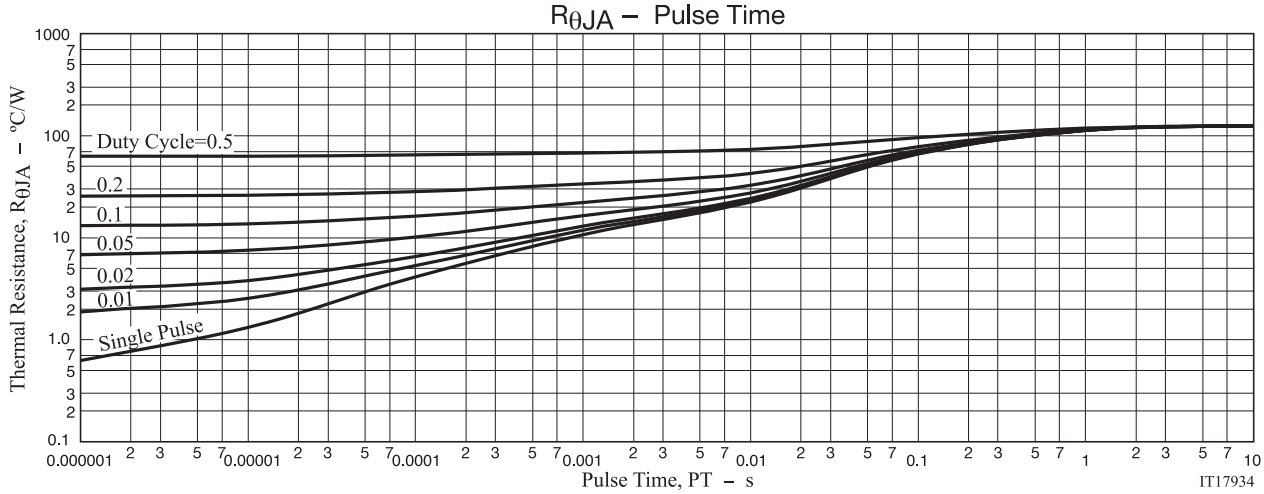








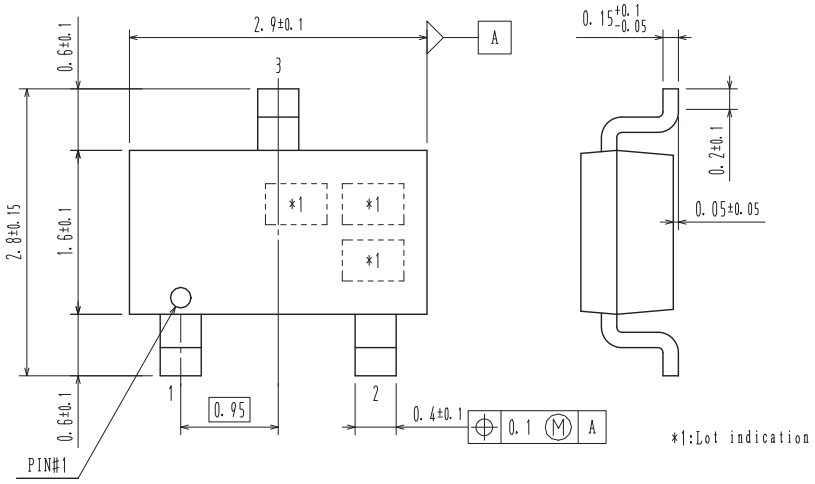




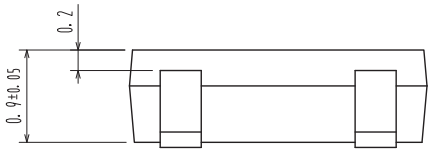
PACKAGE DIMENSIONS

unit : mm

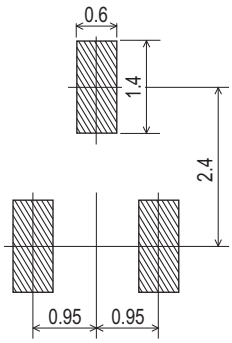
CPH3
CASE 318BA
ISSUE O



1 : Gate
2 : Source
3 : Drain



Recommended Soldering Footprint



ORDERING INFORMATION

Device	Marking	Package	Shipping (Qty / Packing)
1HP04CH-TL-W	WX	CPH3 SC-59, SOT-23, TO-236 (Pb-Free / Halogen Free)	3,000 / Tape & Reel

† 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 1HP04CH is a MOSFET product, please avoid using this device in the vicinity of highly charged objects.