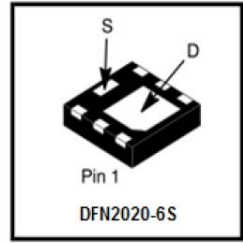


N3408D

N-Channel 30V (D-S) MOSFET

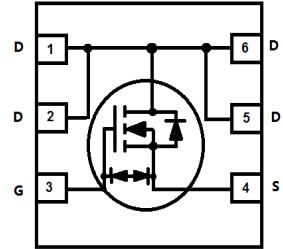
1. FEATURES

- Low RDS(on) trench technology
- Fast Switching Speed
- Low thermal impedance
- We declare that the material of product are Halogen Free and compliance with RoHS requirements.



2. APPLICATIONS

- DC-DC Converter circuit
- Small Signal Switch
- Load Switch



3. DEVICE MARKING AND ORDERING INFORMATION

Device	Marking	Shipping
N3408D	N8S	4000/Tape&Reel

4. MAXIMUM RATINGS(Ta = 25°C unless otherwise stated)

Parameter	Symbol	Limits	Unit	
Drain-to-Source Voltage	VDSS	30	V	
Gate-to-Source Voltage	VGS	±8	V	
Avalanche Current	IAS	20	A	
Avalanche energy L=0.1mH	EAS	20	mJ	
Continuous Drain Current(Note 1)	ID	TA =25°C	10	A
		TA =70°C	8	A
Pulsed Drain Current (Note 2)	IDM	40	A	
Maximum Power Dissipation(Note 1)	PD	TA =25°C	2	W
		TA =70°C	1.3	
Operating Junction and Storage Temperature Range	TJ/Tstg	-55 ~+150	°C	

5. THERMAL CHARACTERISTICS

Parameter	Symbol	Limits	Unit
Maximum Junction-to-Ambient(Note 1)	RθJA	62.5	°C/W
Maximum Junction-to-Ambient(Note 3)	RθJA	141	

- 1.Surface mounted on "1.5 x 1.5" FR4 board using 1 sq in pad, 2 oz Cu.
- 2.Pulse width limited by maximum junction temperature.
- 3.Surface-mounted on FR4 board using the minimum recommended pad size.

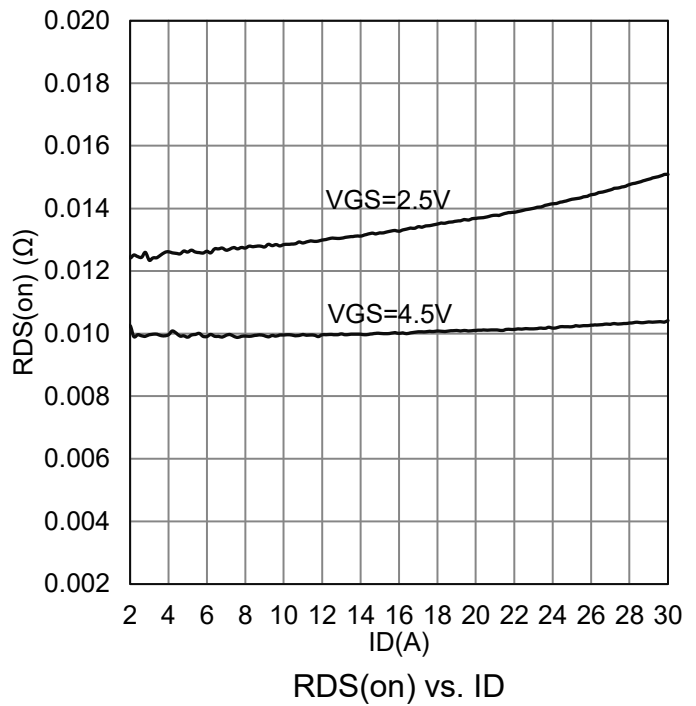
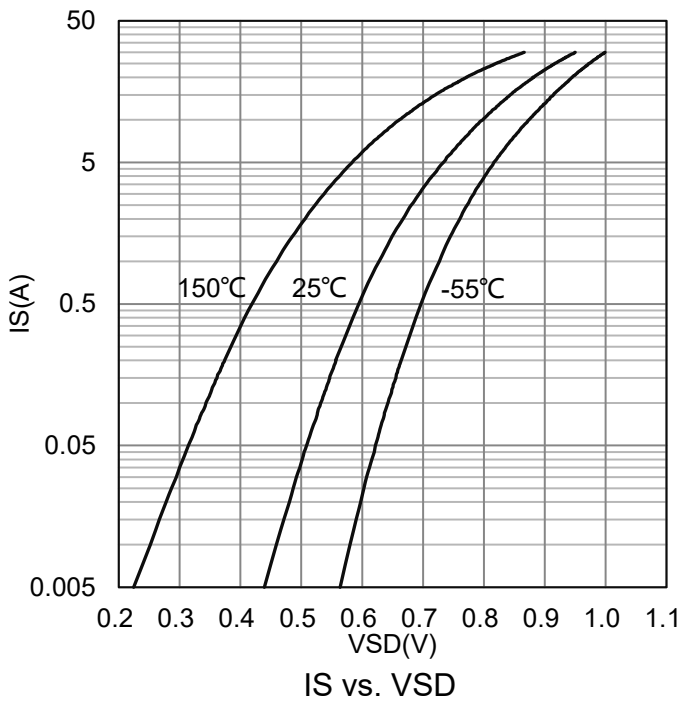
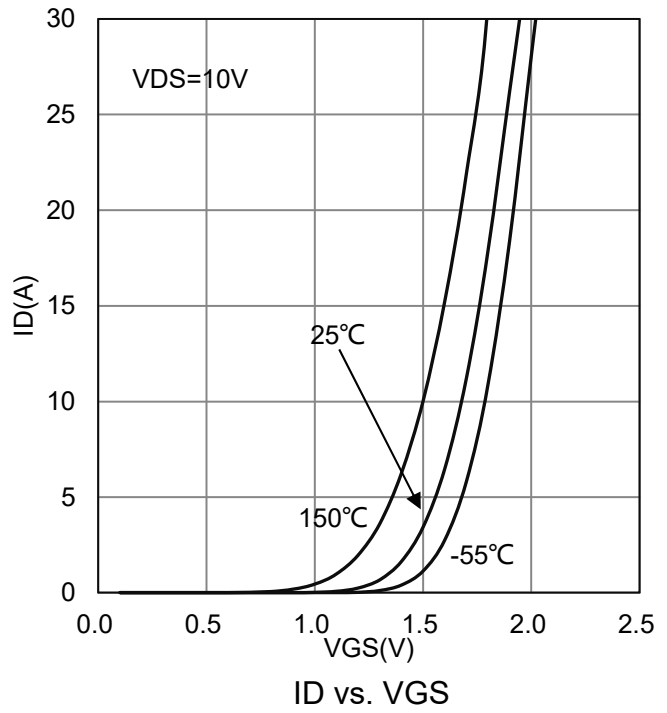
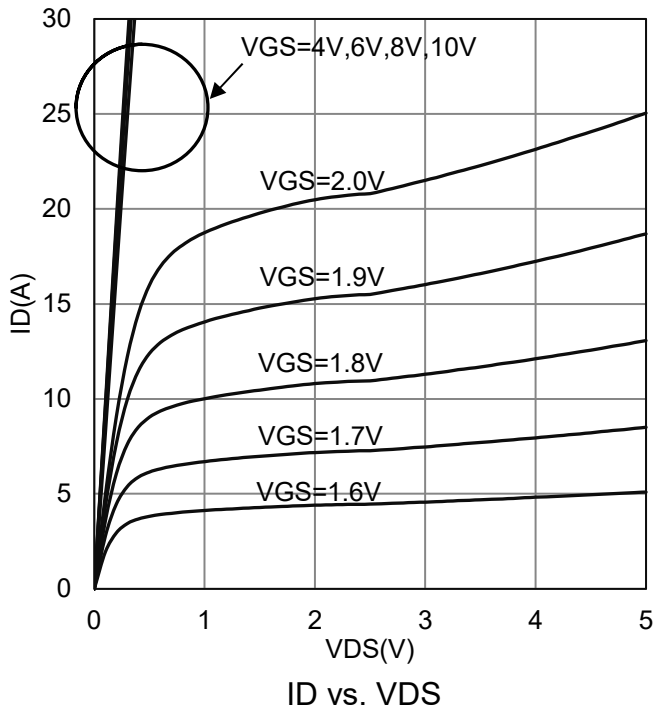


6. ELECTRICAL CHARACTERISTICS

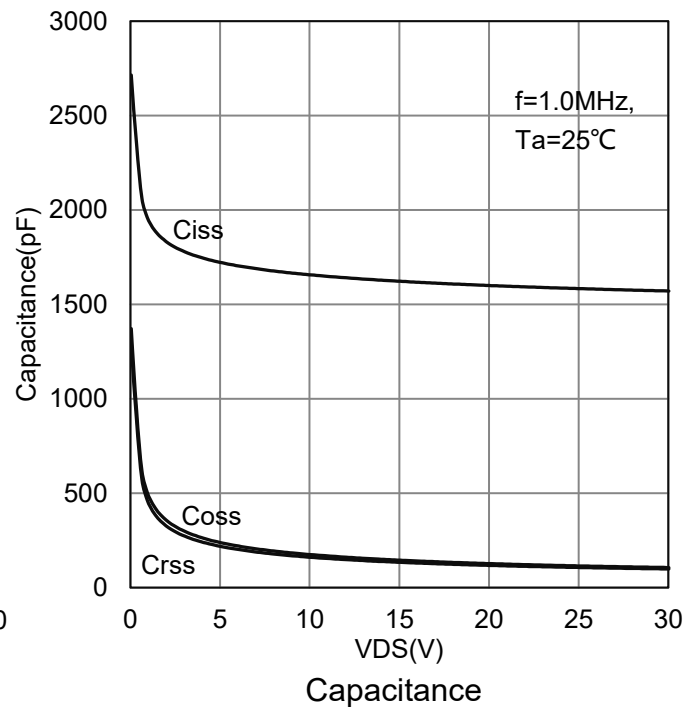
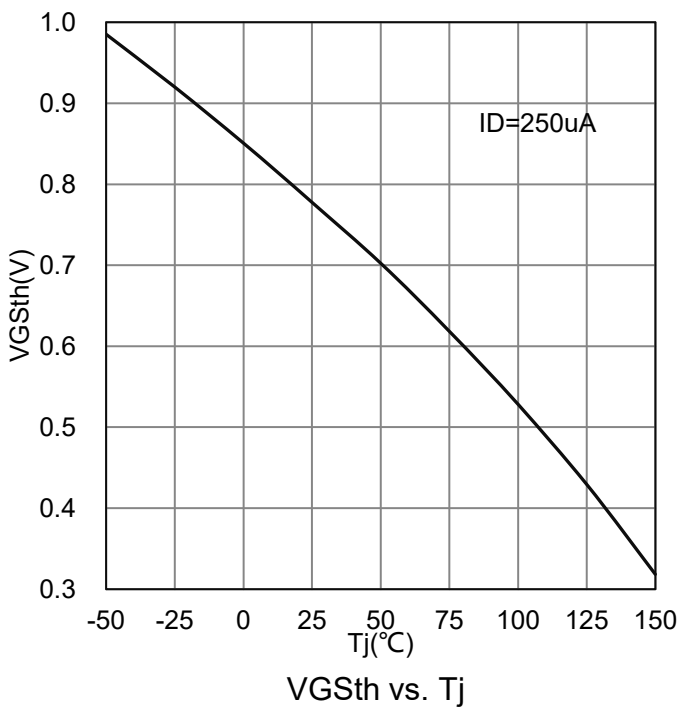
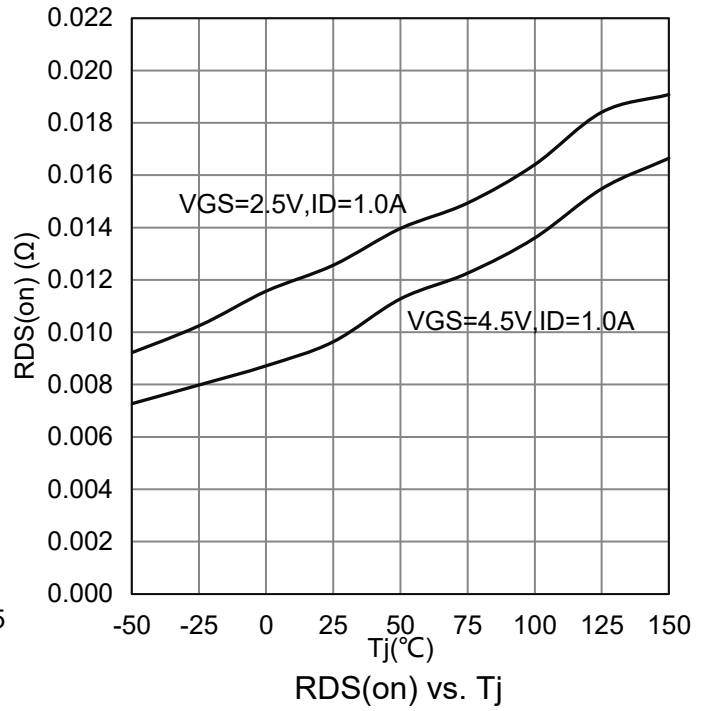
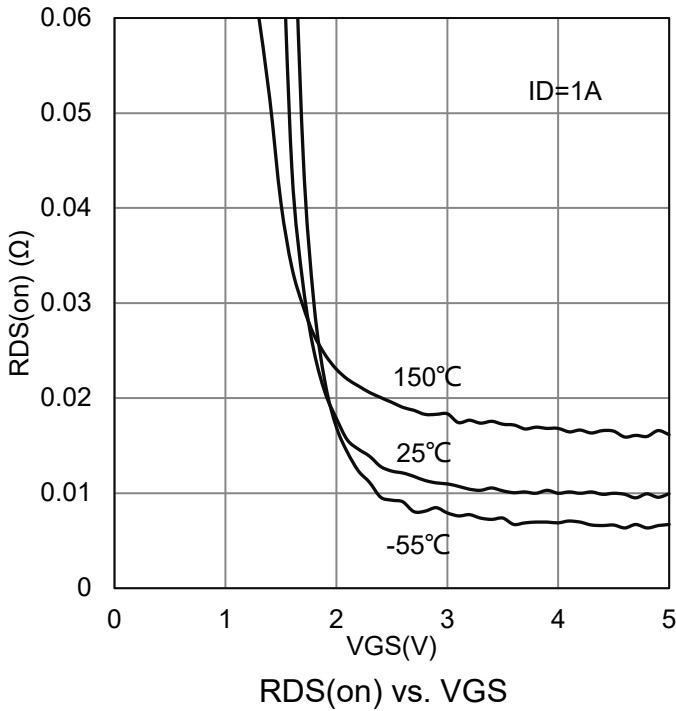
Characteristic	Symbol	Min.	Typ.	Max.	Unit	
Static						
Drain-Source Breakdown Voltage (VGS = 0V, ID = 250μA)	V(BR)DSS	30	-	-	V	
Gate-Source Threshold Voltage (VDS = VGS, ID = 250μA)	VGS(th)	0.45	-	1	V	
Gate Leakage Current (VDS = 0V, VGS = ±8V)	IGSS	-	-	±10	uA	
Zero Gate Voltage Drain Current (VDS = 30 V, VGS = 0 V)	IDSS	-	-	1	uA	
Drain-Source On-Resistance (VGS = 4.5V, ID = 8A) (VGS = 2.5V, ID = 6.8A) (VGS = 1.8V, ID = 4A)	RDS(ON)	-	-	16 20 39	mΩ	
Diode Forward Voltage (IS = 1 A, VGS = 0 V)	VSD	-	-	1.2	V	
Dynamic						
Total Gate Charge	(VDS = 15V, VGS = 4.5V, ID = 8A)	Qg	-	20	-	nC
Gate-Source Charge		Qgs	-	3.8	-	
Gate-Drain Charge		Qgd	-	5.3	-	
Input Capacitance	(VDS = 15V, VGS = 0V, f=1MHz)	Ciss	-	1613	-	pF
Output Capacitance		Coss	-	34	-	
Reverse Transfer Capacitance		Crss	-	59	-	
Turn-On Delay Time	(VDS = 15V, RL = Ω, ID=8A, VGEN = 4.5V, RGEN = 6 Ω)	td(on)	-	TBD	-	ns
Turn-On Rise Time		tr	-	TBD	-	
Turn-Off Delay Time		td(off)	-	TBD	-	
Turn-Off Fall Time		tf	-	TBD	-	



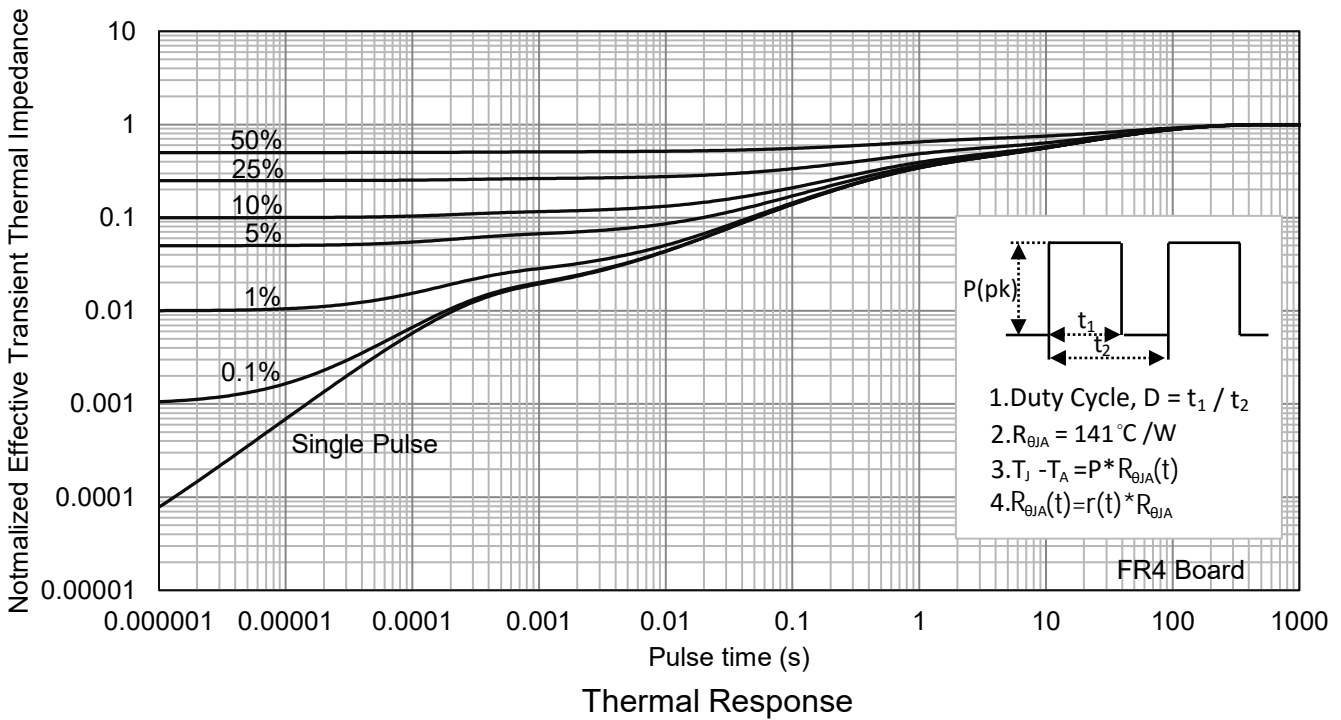
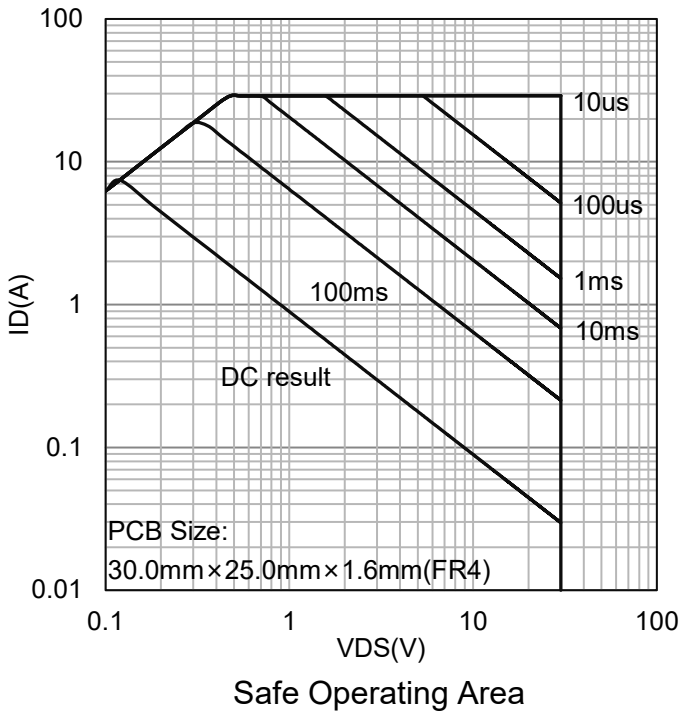
7. ELECTRICAL CHARACTERISTICS CURVES

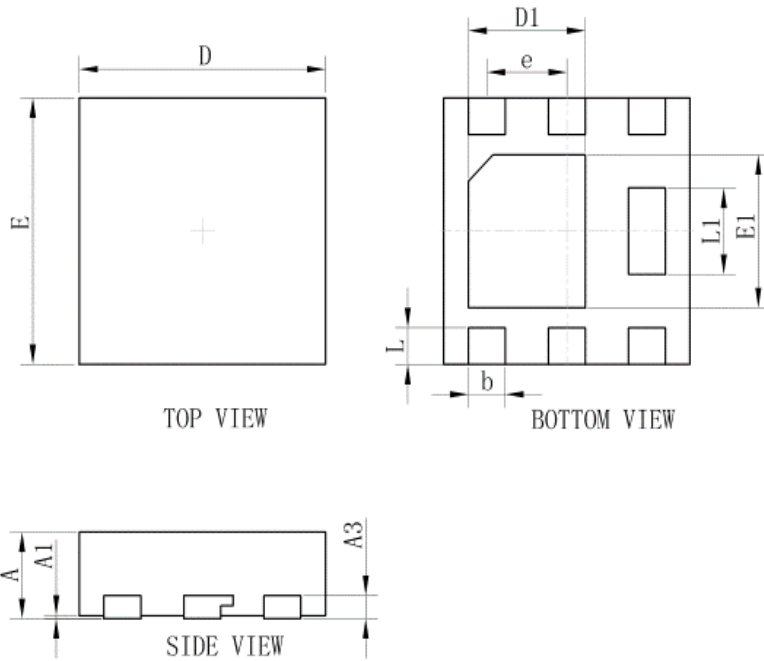


7. ELECTRICAL CHARACTERISTICS CURVES(Con.)

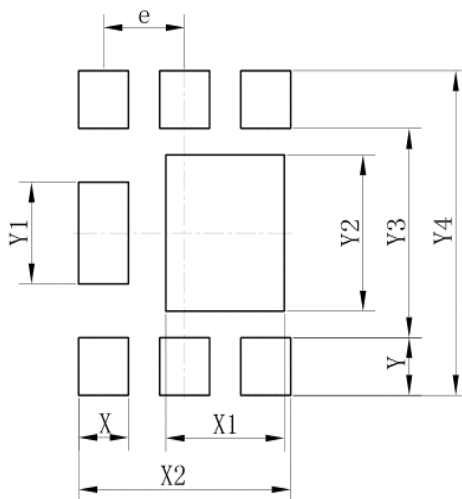


7. ELECTRICAL CHARACTERISTICS CURVES(Con.)



8.OUTLINE AND DIMENSIONS


DFN2020-6S			
DIM	MIN	NOR	MAX
A	0.60	0.65	0.70
A1	0.01	0.03	0.05
b	0.25	0.30	0.35
D	1.95	2.00	2.05
E	1.95	2.00	2.05
e	0.65TYP.		
L	0.23	0.28	0.33
L1	0.60	0.65	0.70
D1	0.90	0.95	1.00
E1	1.10	1.15	1.20
A3	0.152REF		
All Dimensions in mm			

9.SOLDERING FOOTPRINT


DFN2020-6S	
Dim	(mm)
X	0.40
X1	0.95
X2	1.70
e	0.65
Y	0.43
Y1	0.75
Y2	1.15
Y3	1.54
Y4	2.39

