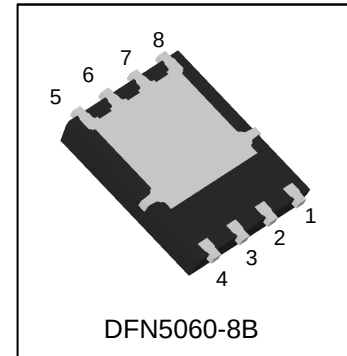


S-LN74008DT3WG

40V N-Channel MOSFET

1. FEATURES

- Proprietary Trench Gate Device Design and Processes
- High Reliability Capability
- We declare that the material of product compliance with RoHS requirements and Halogen Free.
- S-prefix for automotive and other applications requiring unique site and control change requirements; AEC-Q101 qualified and PPAP capable.

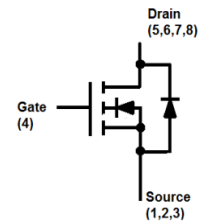


2. APPLICATIONS

- Sampled CP Probing and Inking

3. DEVICE MARKING AND RESISTOR VALUES

Device	Marking	Shipping
S-LN74008DT3WG	LN74008	5000/Tape&Reel



4. MAXIMUM RATINGS

Parameter		Symbol	Limits	Unit
Drain-to-Source Voltage		VDS	40	V
Gate-to-Source Voltage		VGS	± 20	V
Continuous Drain Current(Note 1)	TA =25°C	ID	38	A
	TA =100°C		25	
Pulsed Drain Current(Note 2)		IDM	152	A
Continuous Drain Current	TC =25°C	ID	150	
	TC =100°C		90	
Pulsed Drain Current(Note 2)		IDM	450	
Avalanche Current		IAS	27	A
Avalanche energy(L=1mH)		EAS	364.5	mJ
Power Dissipation	TA =25°C	PD	3	W
	TC =25°C		62.5	
Operating Junction and Storage Temperature Range		TJ , TSTG	-55~+150	°C

5. THERMAL CHARACTERISTICS

Parameter	Symbol	Value	Unit
Junction-to-Ambient(Note 1)	RθJA	45	°C/W
Junction-to-Case	RθJC	2	°C/W

Note:1.Surface mounted on "1.5in x 1.5in" FR4 board using 1*1 in pad, 2 oz Cu.

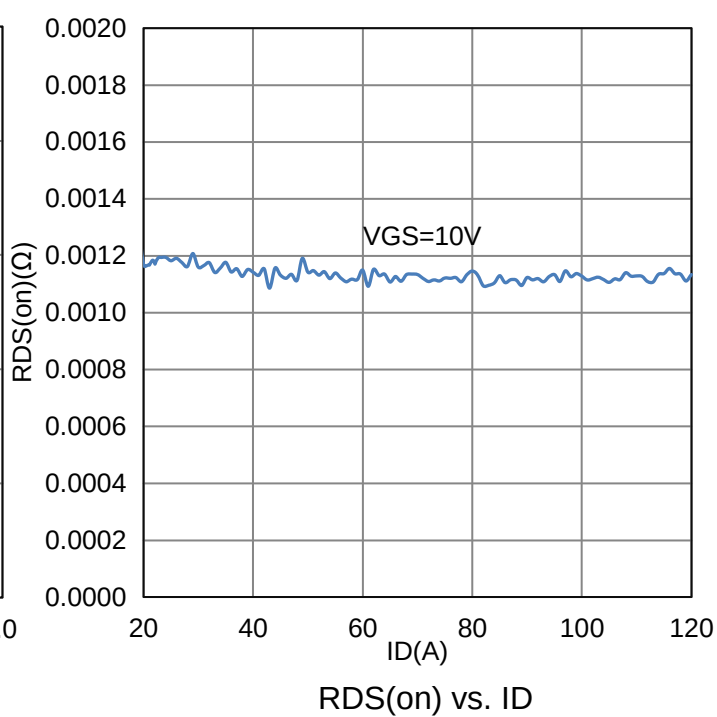
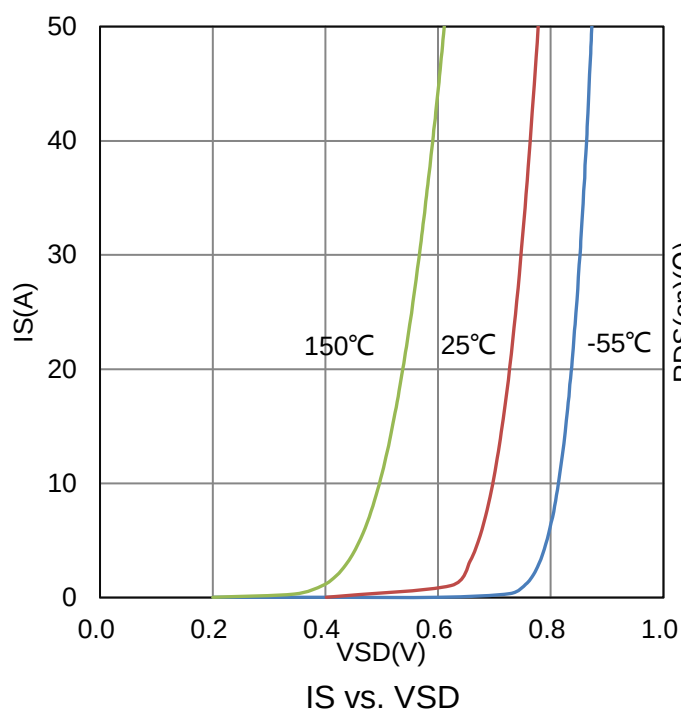
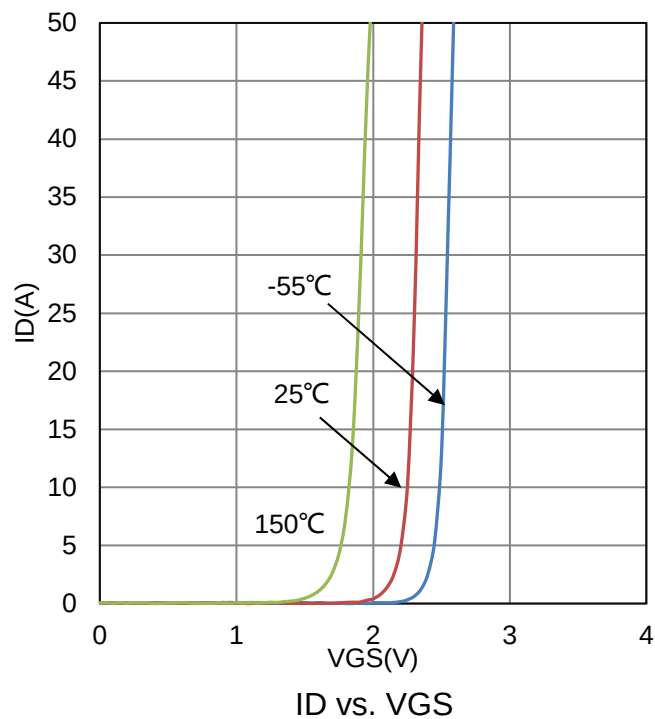
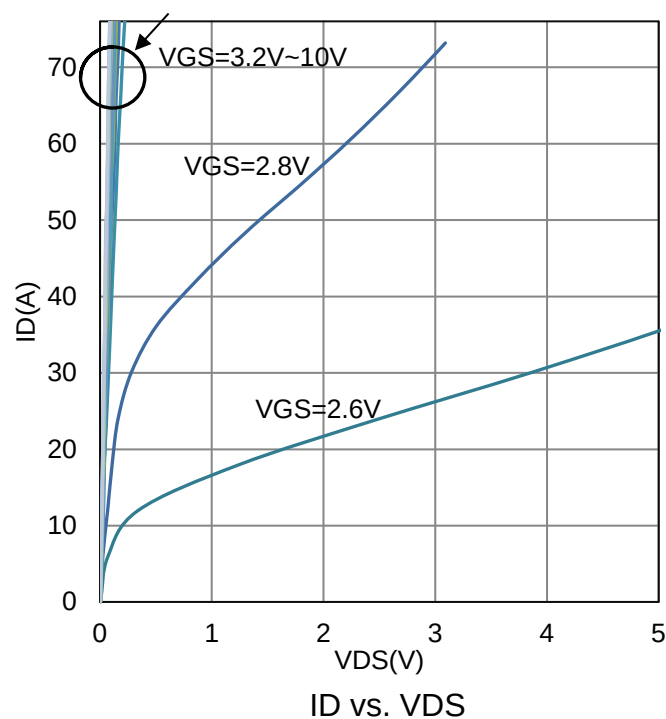
2.Pulse width limited by maximum junction temperature.

6. ELECTRICAL CHARACTERISTICS

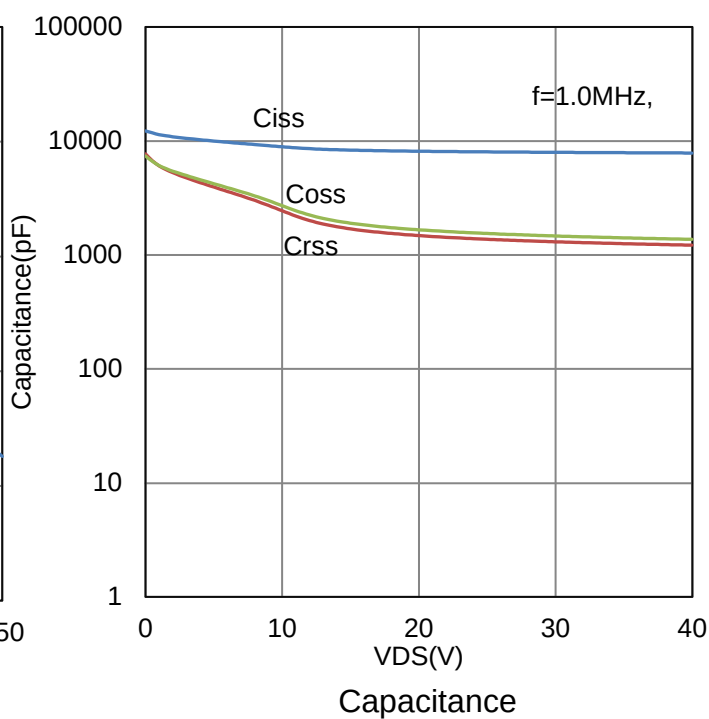
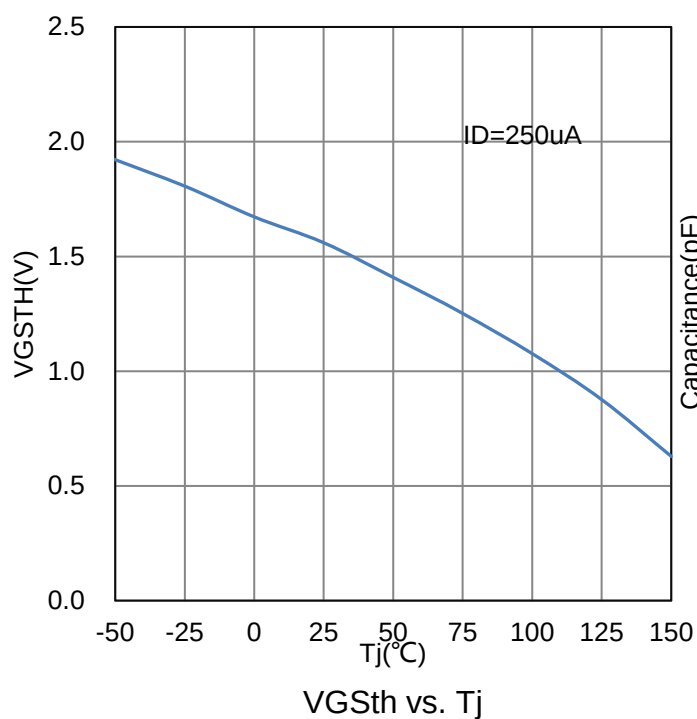
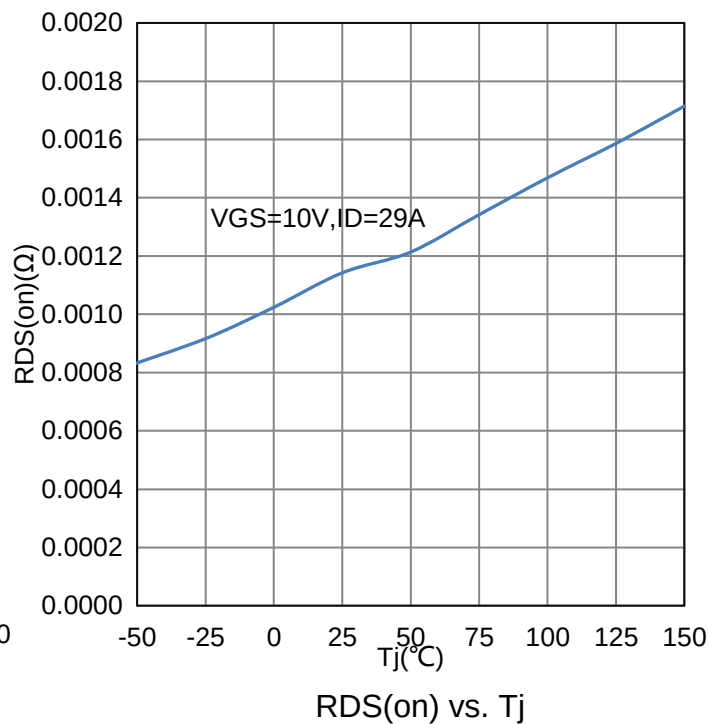
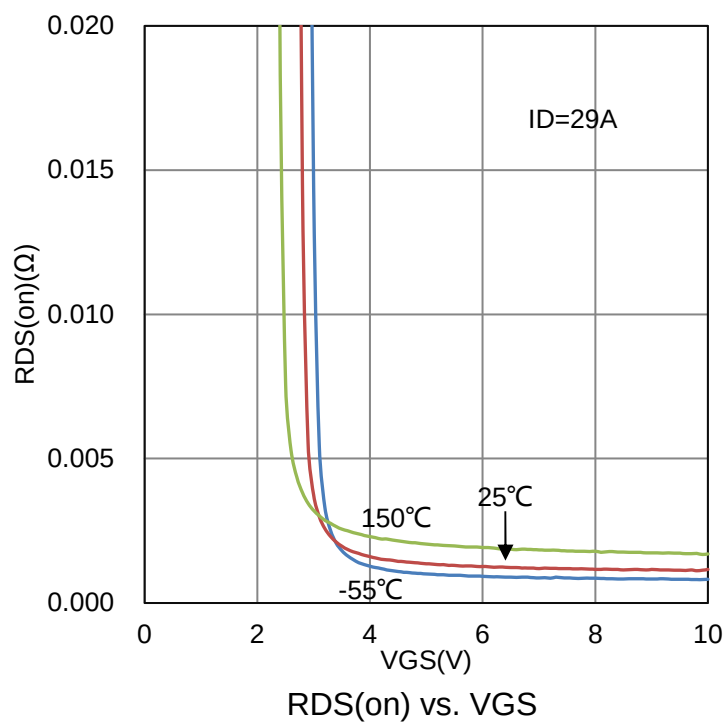
Characteristic		Symbol	Min.	Typ.	Max.	Unit
Static						
Drain-Source Breakdown Voltage (VGS = 0 V, ID = 250 uA)		V(BR)DSS	40	-	-	V
Gate-Source Threshold Voltage (VDS = VGS , ID = 250 uA)		VGS(th)	1	-	2.5	V
Gate-Body leakage current (VDS = 0 V, VGS = ±20 V)		IGSS	-	-	±100	nA
Zero Gate Voltage Drain Current (VDS = 32 V, VGS = 0 V)		IDSS	-	-	1	μA
Drain-to-Source On-Resistance(Note 3) (VGS = 10 V, ID = 29 A)		RDS(ON)	-	1	1.3	mΩ
Dynamic						
Total Gate Charge	(VDS = 20 V, VGS = 10 V, ID = 20 A)	Qg	-	206	-	nC
Gate to Source Charge		Qgs	-	20.7	-	
Gate to Drain Charge		Qgd	-	74	-	
Turn-on Delay Time	(VDS = 20 V, ID = 20 A, VGEN = 10 V, RGEN= 6 Ω)	td(on)	-	36	-	nS
Rise Time		tr	-	84	-	
Turn-Off Delay Time		td(off)	-	308	-	
Fall Time		tf	-	268	-	
Input Capacitance	(VDS = 20 V, VGS = 0 V, f = 1 MHz)	Ciss	-	8086	-	pF
Output Capacitance		Coss	-	1497	-	
Reverse Transfer Capacitance		Crss	-	1679	-	
Diode characteristics						
Continuous Current TA = 25°C		IS	-	-	38	A
Plused Current TA = 25°C		ISM	-	-	152	A
Diode Forward Voltage (IS = 2 A,VGS = 0 V)		VSD	-	0.6	1.2	V

3. Pulse test: PW $\leq$ 300 μ s duty cycle $\leq$ 2%.

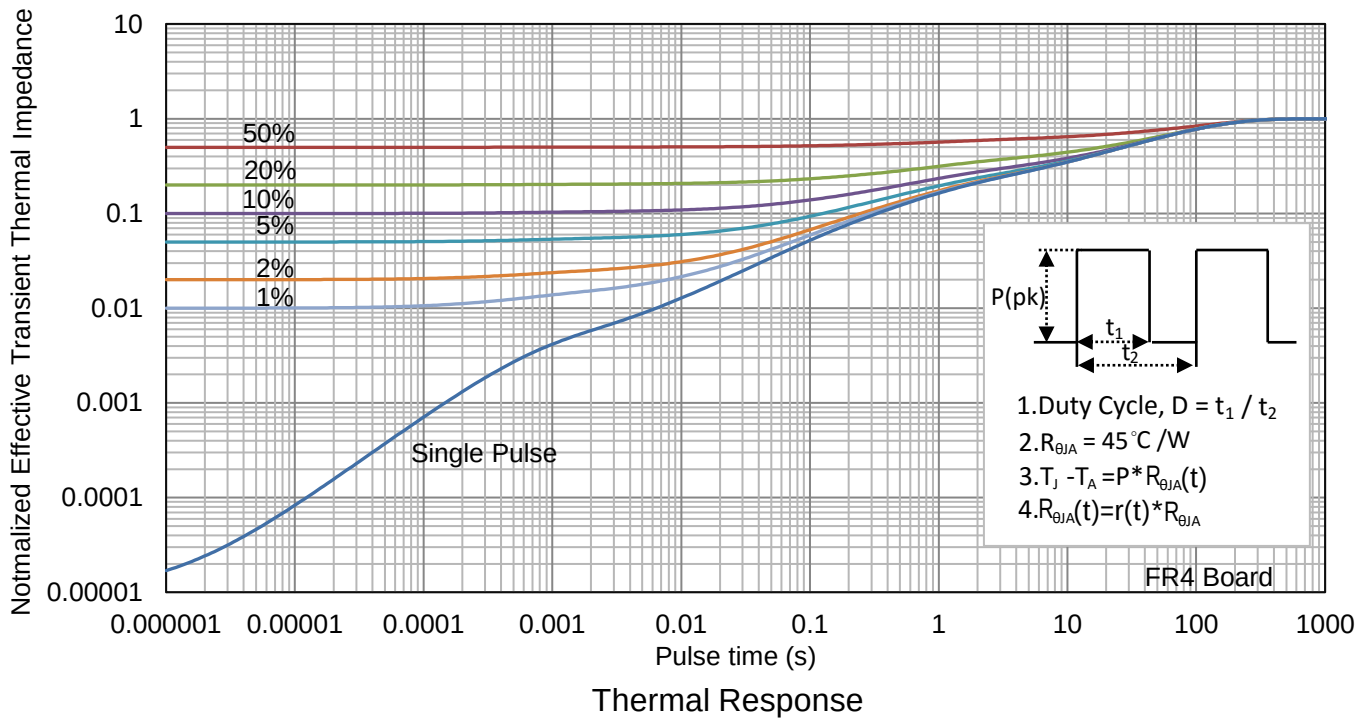
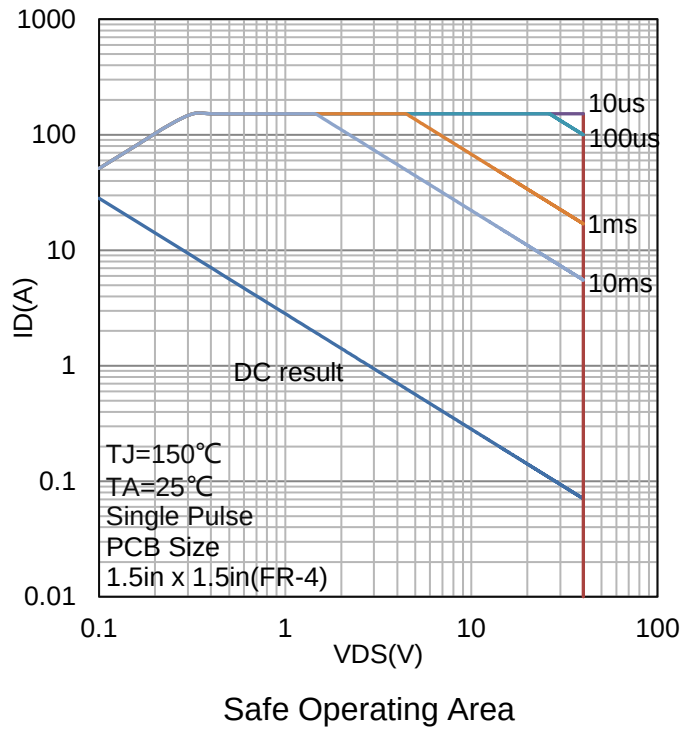
7. ELECTRICAL CHARACTERISTICS CURVES



7. ELECTRICAL CHARACTERISTICS CURVES(Con.)



7. ELECTRICAL CHARACTERISTICS CURVES(Con.)



DISCLAIMER

- Curve guarantee in the specification. The curve of test items with electric parameter is used as quality guarantee. The curve of test items without electric parameter is used as reference only.
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