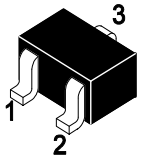
LP1480WT1G
S-LP1480WT1G

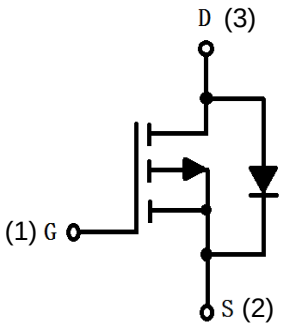
-20V P-Channel Power Mosfet

1. FEATURES

- V(BR)DSS=-20V
  RDS(ON) ≤255mΩ @VGS =-4.5V,ID=-1.0A
  RDS(ON) ≤355mΩ @VGS =-2.5V,ID=-0.5A
- 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.



SC70(SOT-323)



2. APPLICATIONS

- Power Management in Note book
- Portable Equipment
- Battery Powered System
- Load Switch
- DSC

3. DEVICE MARKING AND RESISTOR VALUES

Device	Marking	Shipping
LP1480WT1G	W14	3000/Tape&Reel
S-LP1480WT1G	W14	3000/Tape&Reel

4. MAXIMUM RATINGS(Ta = 25ºC)

Parameter		Symbol	Limits	Unit
Drain-Source voltage		VDS	-20	V
Gate-Source Voltage		VGS	±8	V
Continuous Drain Current	Steady-State	ID	-1.4	A
	@t≤5s		-1.5	
Pulse Drain Current @Tp=10μs		IDM	-3.0	

5. THERMAL CHARACTERISTICS

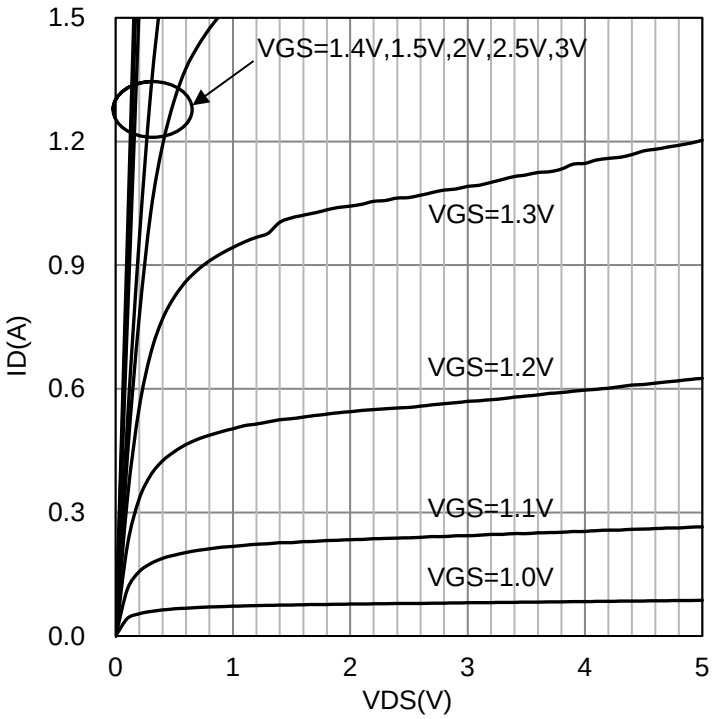
Parameter	Symbol	Limits	Unit
Power Dissipation FR−4 Board (Note 1) @ TA = 25ºC @ TA = 70ºC	PD	 0.29 0.19	W
Thermal Resistance, Junction–to–Ambient(Note 1)	RΘJA	430	ºC/W
Junction and Storage temperature	TJ,Tstg	−55~+150	° C

1.1-in2 2oz Cu PCB board.

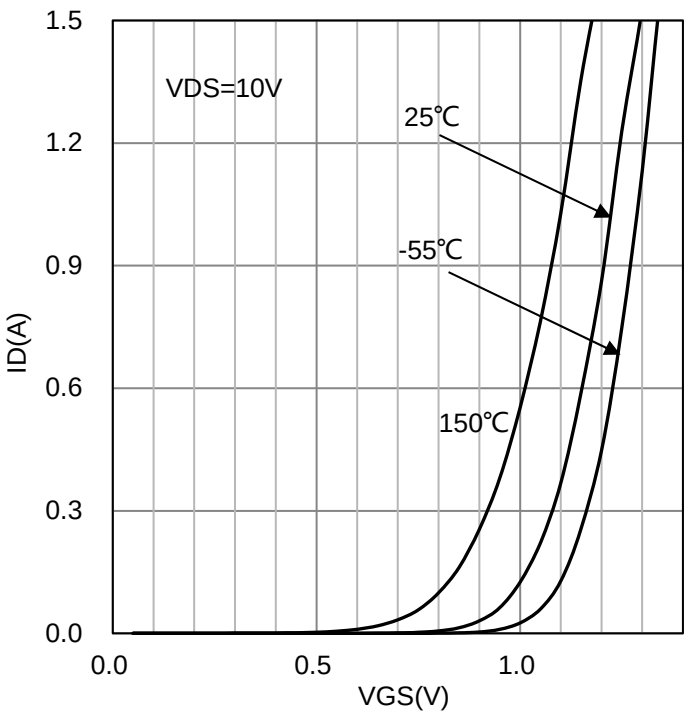
6. ELECTRICAL CHARACTERISTICS (Ta= 25°C)

Characteristic		Symbol	Min.	Typ.	Max.	Unit
Static						
Drain-Source Voltage (ID =-250μA, VGS =0V)		V(BR)DSS	-20	-	-	V
Zero Gate Voltage Drain Current (VDS = -16V, VGS =0V)		IDSS	-	-	-1	μA
Gate-body Leakage Current (VDS =0V, VGS =±8V)		IGSS	-	-	±100	nA
Gate Threshold Voltage (VDS =VGS , ID =-250μA)		VGS(th)	-0.4	-0.6	-1.0	V
Static Drain-Source On resistance (VGS = -4.5V,ID= -1A) (VGS = -2.5V,ID= -0.5A) (VGS = -1.8V,ID= -0.3A)		RDS(ON)		110 150 190	255 355 405	mΩ
Diode Forward Voltage (IS = -1A, VGS =0V)		VSD	-	-0.79	-1.5	V
Dynamic						
Input Capacitance	(VDS = -10V, VGS =0V, f=1MHz)	Ciss	-	400	-	pF
Output Capacitance		Coss	-	41	-	
Reverse Transfer Capacitance		Crss	-	30	-	
Total Gate Charge	(VGS = -4.5V, ID = -1.2A, VDS = -10V)	Qg	-	4	-	nC
Gate Source Charge		Qgs	-	0.6	-	
Gate Drain Charge		Qgd	-	0.85	-	
Turn-On Delay Time	(VGS = -4.5V, VDS = -10V, ID = -1.2A, RGEN =6Ω)	td(on)	-	5	-	ns
Turn-On Rise Time		tr	-	11	-	
Turn-Off Delay Time		td(off)	-	30	-	
Turn-Off Fall Time		tf	-	18	-	
Gate Resistance (VDS =0V, VGS =0V, f=1MHz)		Rg	-	12	-	Ω
Maximum Body-diode Continuous Current		IS	-	-	-1	A
Body-diode Reverse Recovery Time (Is = -1.0A, di/dt=100A/μs)		trr	-	30	-	ns
Body-diode Reverse Recovery Charge (Is = -1.0A, di/dt=100A/μs)		Qrr	-	12	-	nC

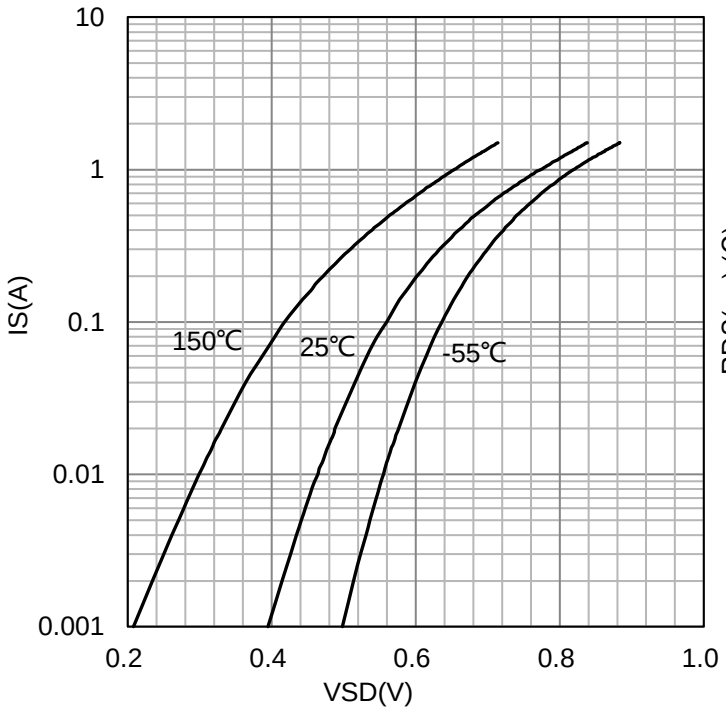
7. ELECTRICAL CHARACTERISTICS CURVES



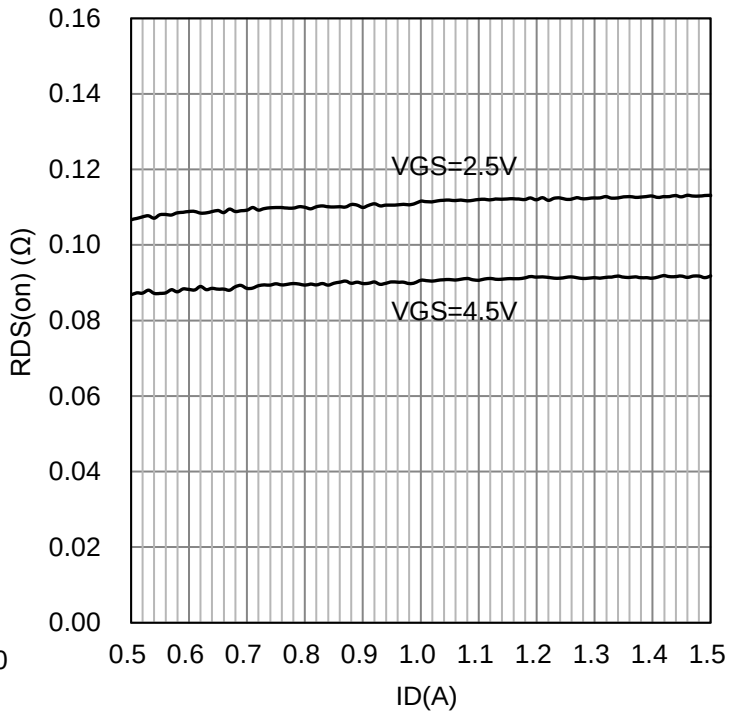
ID vs. VDS



ID vs. VGS

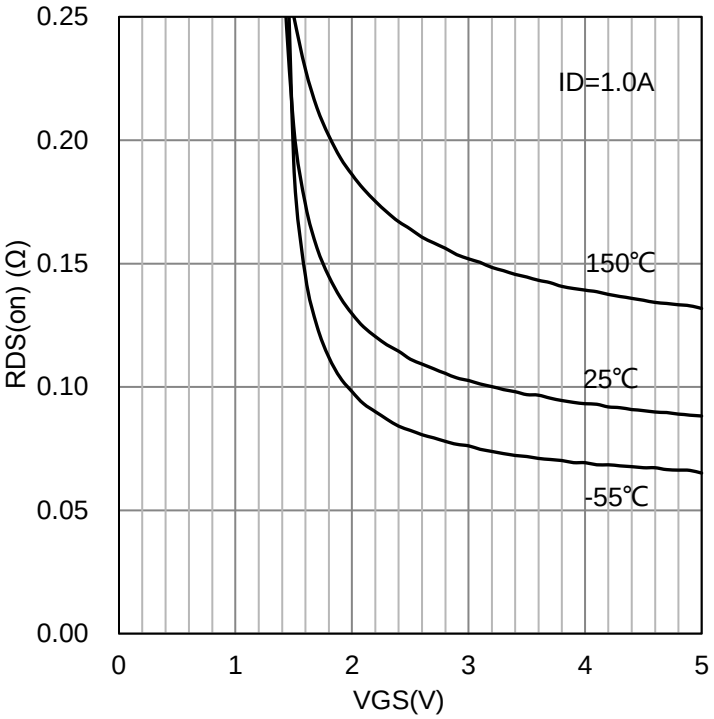


IS vs. VSD

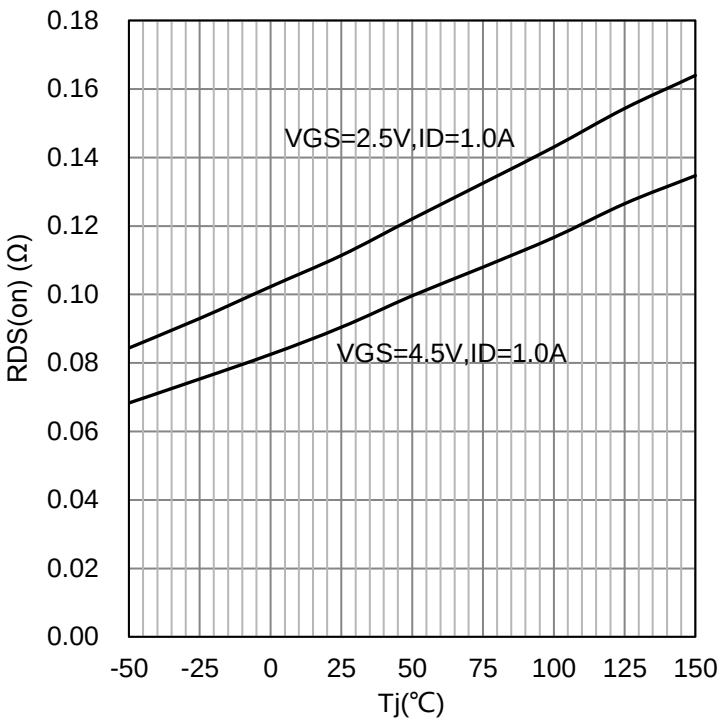


RDS(on) vs. ID

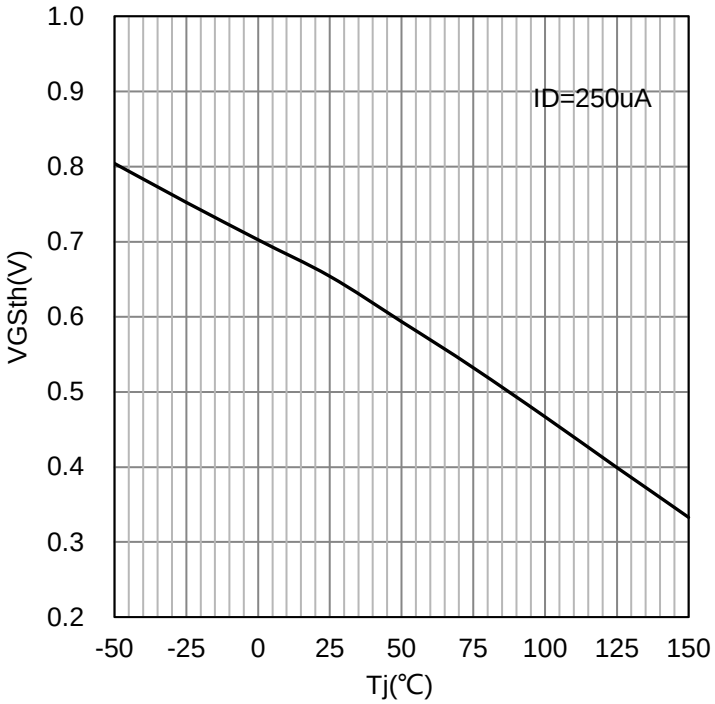
7. ELECTRICAL CHARACTERISTICS CURVES(Con.)



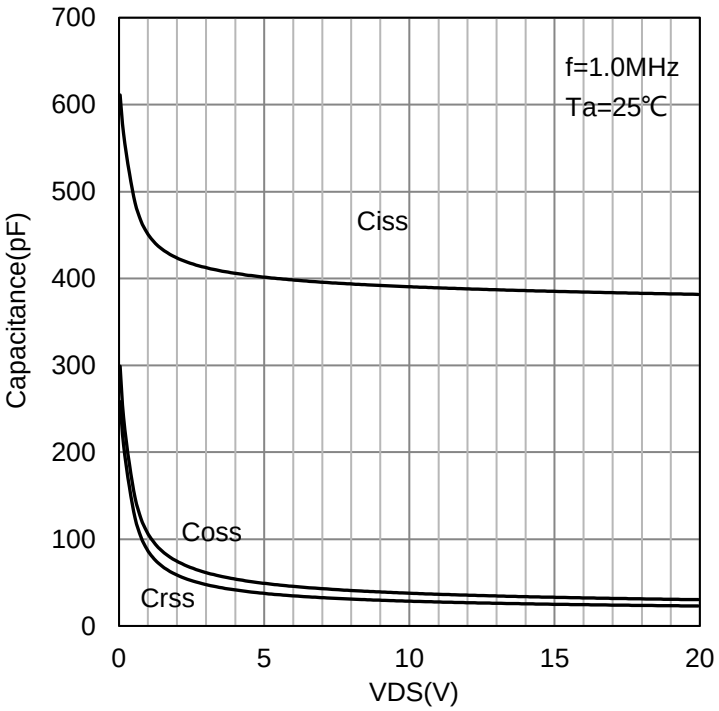
RDS(on) vs. VGS



RDS(on) vs. Tj

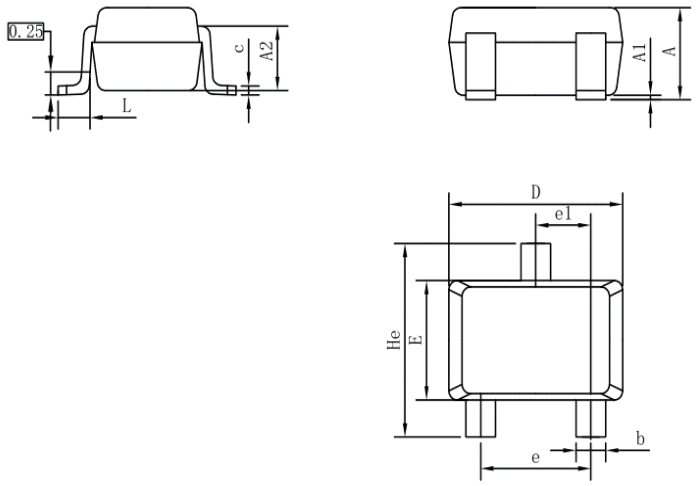


VGSth vs. Tj



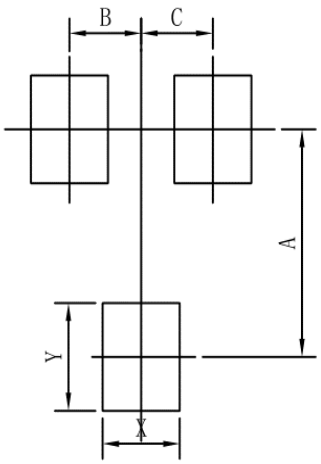
Capacitance

8.OUTLINE AND DIMENSIONS



SC70			
DIM	MIN	NOR	MAX
A	0.80	0.95	1.00
A1	0.00	0.05	0.10
A2		0.7 REF	
b	0.30	0.35	0.40
c	0.10	0.15	0.25
D	1.80	2.05	2.20
E	1.15	1.30	1.35
e	1.20	1.30	1.40
e1		0.65 BSC	
L	0.20	0.35	0.56
He	2.00	2.10	2.40
ALL Dimension in mm			

9.SOLDERING FOOTPRINT



SC70	
DIM	MIN
A	1.90
B	0.65
C	0.65
X	0.70
Y	0.90

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