

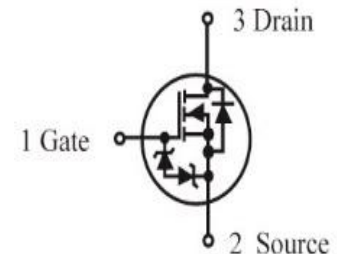
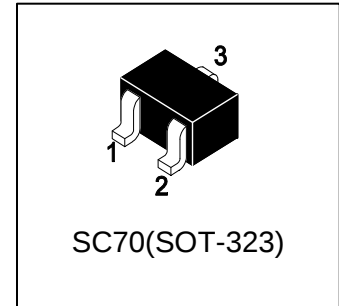
LN1482WT1G

S-LN1482WT1G

30V N-Channel Small Signal MOSFET

1. FEATURES

- $V_{(BR)DSS}=30V$
 $R_{DS(ON)} \leq 100m\Omega @V_{GS}=4.5V$
 $R_{DS(ON)} \leq 130m\Omega @V_{GS}=2.5V$
- Extremely Low Threshold Voltage
- 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

- DC-DC converter circuit
- Small Signal Switch
- Load Switch
- Level Shift

3. DEVICE MARKING AND RESISTOR VALUES

Device	Marking	Shipping
LN1482WT1G	2W	3000/Tape&Reel
S-LN1482WT1G	2W	3000/Tape&Reel

4. MAXIMUM RATINGS($T_a = 25^\circ C$)

Parameter		Symbol	10S	Steady State	Unit
Drain-Source voltage		V_{DS}	30		V
Gate-Source Voltage		V_{GS}	± 12		V
Continuous Drain Current(Note 1)	$T_A=25^\circ C$	I_D	2	1.5	A
	$T_A=70^\circ C$		1.6	1.15	
Maximum Power Dissipation(Note 1)	$T_A=25^\circ C$	PD	0.37	0.31	W
	$T_A=70^\circ C$		0.23	0.2	
Continuous Drain Current(Note 2)	$T_A=25^\circ C$	I_D	1.6	1.25	A
	$T_A=70^\circ C$		1.4	1	
Maximum Power Dissipation(Note 2)	$T_A=25^\circ C$	PD	0.29	0.23	W
	$T_A=70^\circ C$		0.18	0.14	
Pulsed Drain Current(Note 3)		IDM	3.5		A
Operating Junction Temperature		T_J	150		$^\circ C$
Lead Temperature		TL	260		$^\circ C$
Storage Temperature Range		T_{stg}	-55~+150		$^\circ C$

5. THERMAL CHARACTERISTICS

Parameter		Symbol	Min	Typ.	Max	Unit
Junction-to-Ambient Thermal Resistance(Note 1)	$t \leq 10$ s	R θ JA	-	275	335	$^{\circ}\text{C/W}$
	Steady State		-	325	395	
Junction-to-Ambient Thermal Resistance(Note 2)	$t \leq 10$ s		-	375	430	
	Steady State		-	445	535	
Junction-to-Case Thermal Resistance	Steady State	R θ JC	-	260	300	

- 1.Surface mounted on FR4 Board using 1 square inch pad size, 1oz copper
- 2.Surface mounted on FR4 board using minimum pad size, 1oz copper
- 3.Repetitive rating, pulse width limited by junction temperature, $t_p = 10\mu\text{s}$, Duty Cycle=1%
- 4.Repetitive rating, pulse width limited by junction temperature $T_J = 150^{\circ}\text{C}$.

6. ELECTRICAL CHARACTERISTICS (Ta= 25°C)

OFF CHARACTERISTICS

Characteristic	Symbol	Min.	Typ.	Max.	Unit
Drain-to-Source Breakdown Voltage ($I_D = 250\mu\text{A}$, $V_{GS} = 0\text{V}$)	V(BR)DSS	30	-	-	V
Zero Gate Voltage Drain Current ($V_{DS} = 16\text{V}$, $V_{GS} = 0\text{V}$)	I_{DSS}	-	-	1	μA
Gate-to-source Leakage Current ($V_{DS} = 0\text{V}$, $V_{GS} = \pm 5\text{V}$)	I_{GSS}	-	-	± 10	μA

ON CHARACTERISTICS

Gate Threshold Voltage ($V_{DS} = V_{GS}$, $I_D = 250\mu\text{A}$)	$V_{GS(th)}$	0.6	-	1.4	V
Static Drain-Source On resistance ($V_{GS} = 4.5\text{V}$, $I_D = 0.55\text{A}$) ($V_{GS} = 2.5\text{V}$, $I_D = 0.45\text{A}$)	$R_{DS(ON)}$	- -	75 95	100 130	$\text{m}\Omega$

CHARGES, CAPACITANCES AND GATE RESISTANCE

Input Capacitance	(VGS = 0 V, f = 100 KHz, VDS = 10 V)	Ciss	-	247	-	pF
Output Capacitance		Coss	-	33	-	
Reverse Transfer Capacitance		Crss	-	5	-	
Total Gate Charge	(VGS = 4.5 V, VDS = 10 V, ID = 1A)	Qg	-	4.7	-	nC
Threshold Gate Charge		Qg	-	3.6	-	
Gate-to-Source Charge		Qgs	-	1.9	-	
Gate-to-Drain Charge		Qgd	-	1.6	-	
Gate-Resistance (VGS = 0 V, VDS=0V,f=1MHz)		Rg	-	68	-	Ω

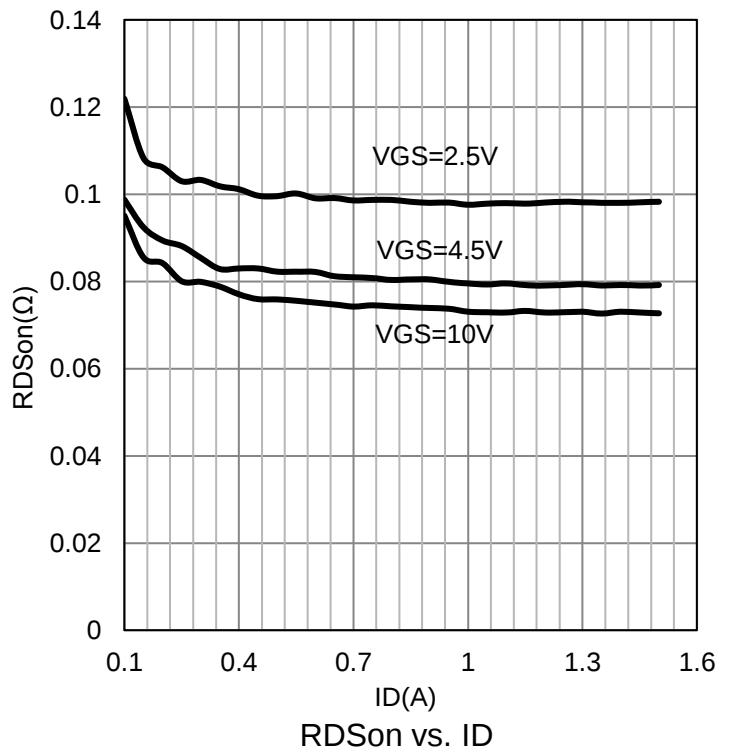
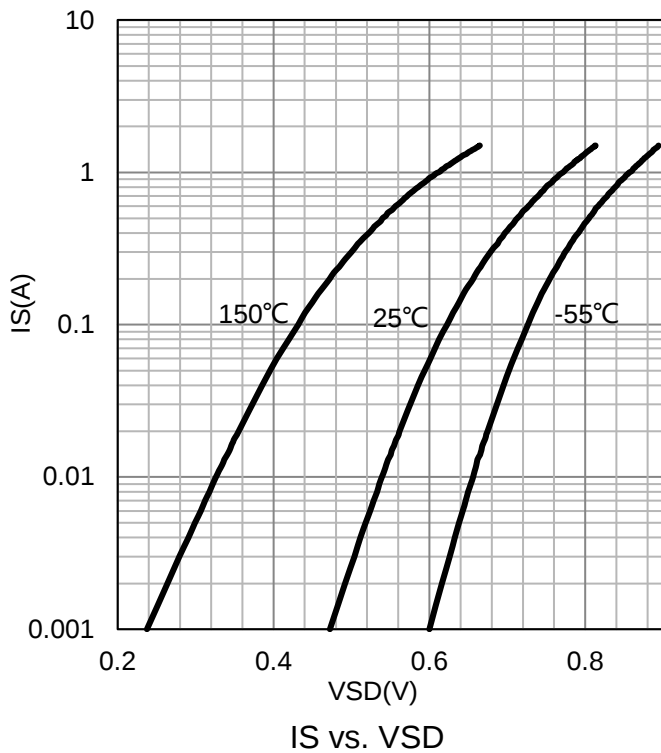
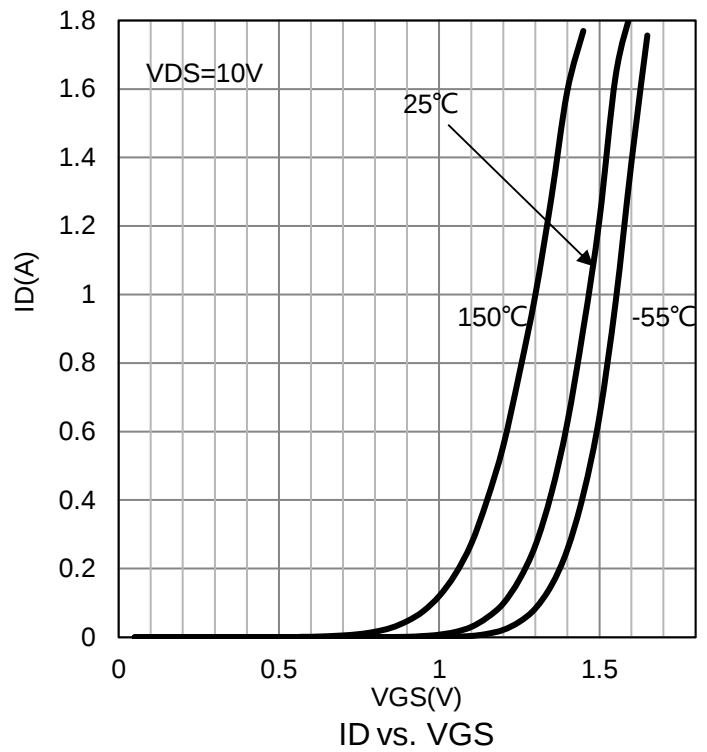
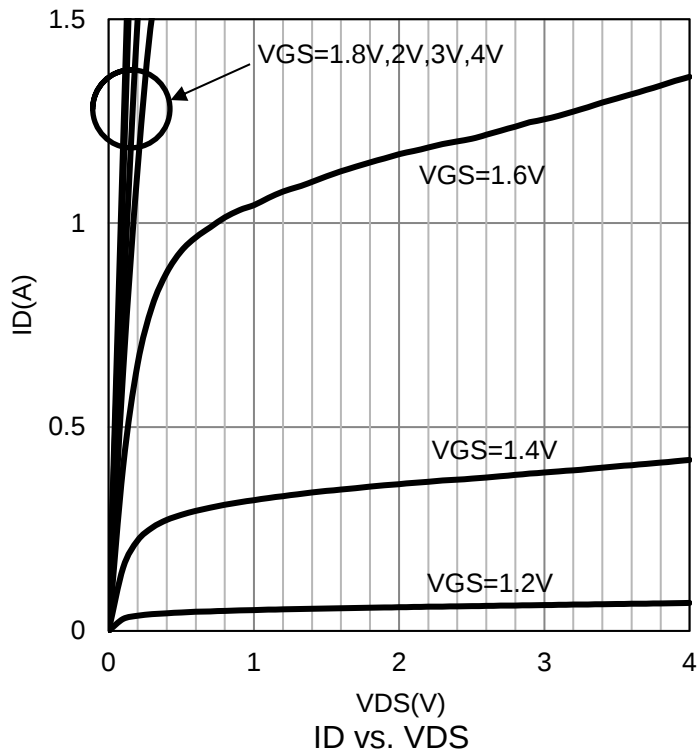
SWITCHING CHARACTERISTICS

Turn-On Delay Time	(VDD =10V, VGS =4.5V, ID =1A, RG =6 Ω)	tD(on)	-	98	-	ns
Turn-On Rise Time		tr	-	128	-	
Turn-Off Delay Time		tD(off)	-	2600	-	
Turn-Off Fall Time		tf	-	677	-	

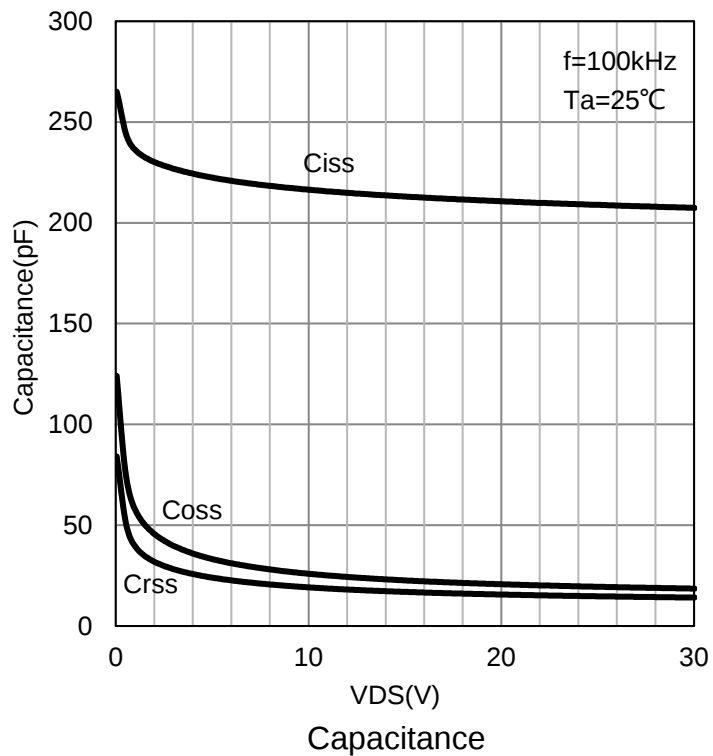
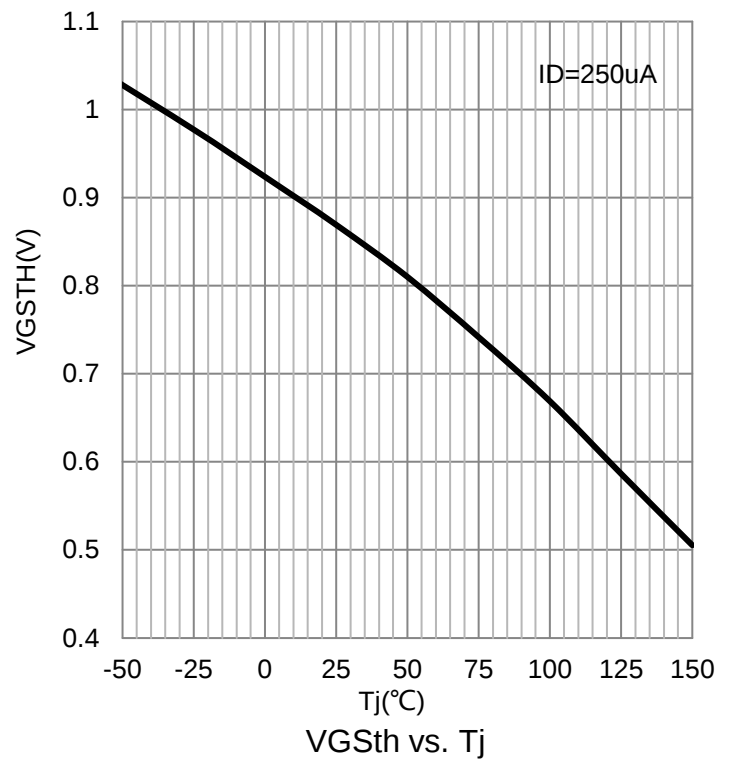
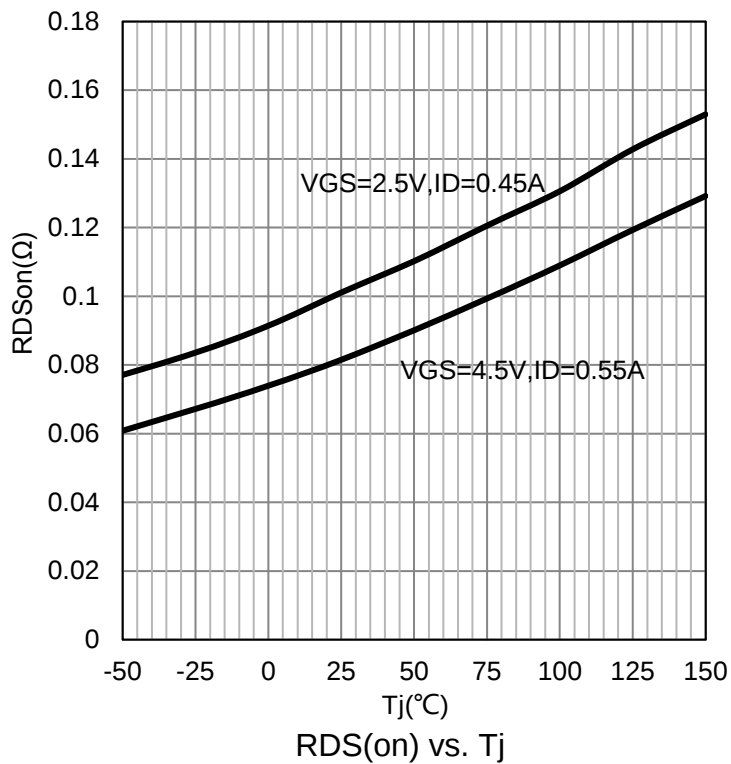
BODY DIODE CHARACTERISTICS

Diode Forward Voltage (VGS = 0 V, IS = 2A)	VSD		0.8	1.2	V
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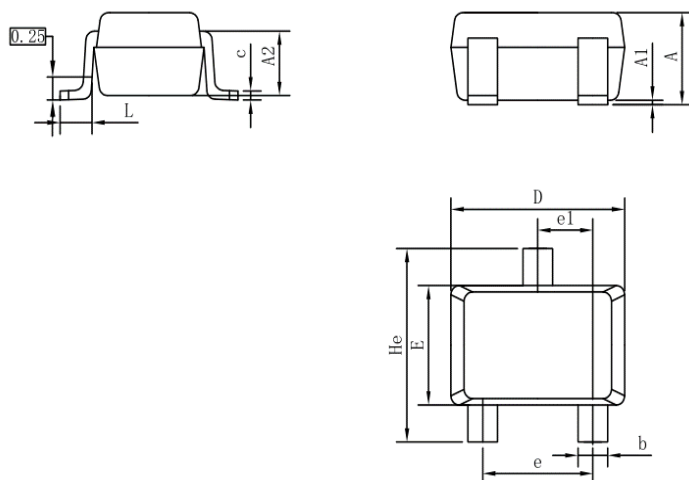
7. ELECTRICAL CHARACTERISTICS CURVES



7.ELECTRICAL CHARACTERISTICS CURVES(Con.)

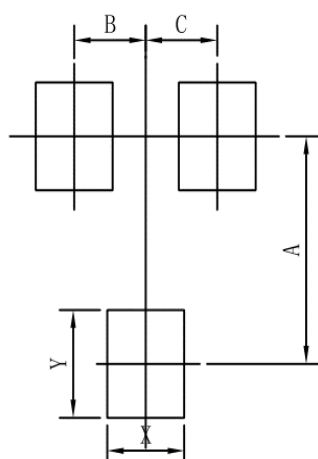


8.OUTLINE AND DIMENSIONS



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

单击下面可查看定价，库存，交付和生命周期等信息

[>>LRC\(乐山无线电\)](#)