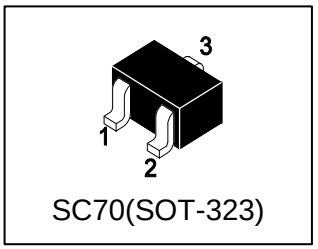
# L2SK3018WT1G
# S-L2SK3018WT1G

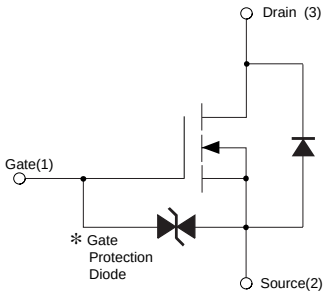
N-channel MOSFET
100 mA, 30 V



SC70(SOT-323)

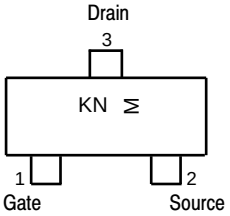
## 1. FEATURES

- 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.
- Low on-resistance.
- Fast switching speed.
- Easy to parallel.
- ESD>500V
- Low voltage drive (2.5V) makes this device ideal for portable equipment.
- Easily designed drive circuits.




## 2. DEVICE MARKING AND ORDERING INFORMATION

| Device | Marking | Shipping |
|---|---|---|
| L2SK3018WT1G | KN | 3000/Tape&Reel |
| L2SK3018WT3G | KN | 10000/Tape&Reel |




KN = Device Code
M = Month Code

## 3. MAXIMUM RATINGS(Ta = 25ºC)

| Parameter | | Symbol | Limits | Unit |
|---|---|---|---|---|
| Drain–Source Voltage | | VDSS | 30 | V |
| Gate-Source Voltage | | VGS | ±20 | V |
| Drain Current | Continuous | ID | ±100 | mA |
| | Pulsed | IDP(Note 1) | ±400 | |
| Total power dissipation (TC=25°C) | | PD(Note 2) | 200 | mW |
| Channel temperature | | Tch | 150 | ℃ |
| Storage temperature | | Tstg | -55~+150 | ℃ |

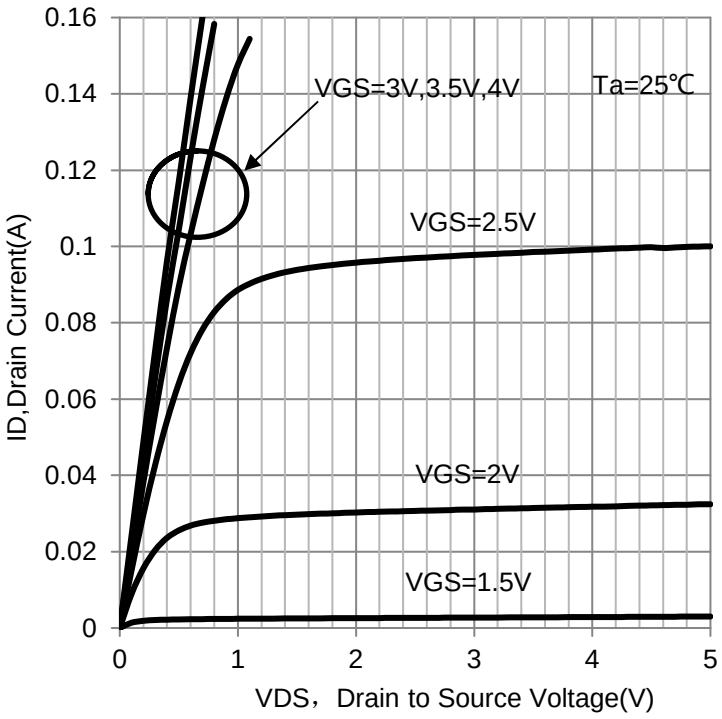
1.Pw≤10μs, Duty cycle≤1%

2 With each pin mounted on the recommended lands.

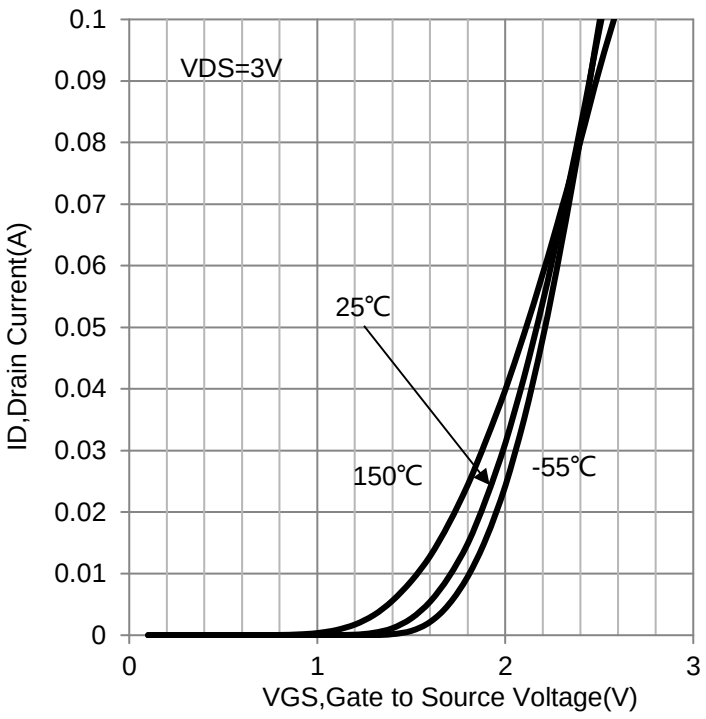
## 4. ELECTRICAL CHARACTERISTICS (Ta= 25°C)

| Characteristic | | Symbol | Min. | Typ. | Max. | Unit |
|---|---|---|---|---|---|---|
| Gate-source leakage<br>(VGS = ±20V, VDS = 0V) | | IGSS | - | - | ±1 | μA |
| Drain–Source Breakdown Voltage<br>(VGS = 0, ID = 10μA) | | VBRDSS | 30 | - | - | V |
| Zero Gate Voltage Drain Current<br>(VGS = 0, VDS = 30 V) | | IDSS | | | 1 | μA |
| Gate Threshold Voltage<br>(VDS = 3V, ID = 100μA) | | VGS(th) | 0.8 | - | 1.5 | V |
| Static Drain–Source On–State Resistance<br>(ID = 10mA, VGS = 4V)<br>(ID = 1mA, VGS = 2.5V) | | RDS(on) | -<br>- | 5<br>7 | 8<br>13 | Ω |
| Forward transfer admittance<br>(VDS = 3V, ID = 10mA) | | \| Yfs \| | 20 | - | - | mS |
| Input Capacitance<br>(VDS = 5 V, VGS = 0, f = 1.0 MHz) | | Ciss | - | 13 | - | pF |
| Output Capacitance<br>(VDS = 5 V, VGS = 0, f = 1.0 MHz) | | Coss | - | 9 | - | pF |
| Reverse Transfer Capacitance<br>(VDS = 5 V, VGS = 0, f = 1.0 MHz) | | Crss | - | 4 | - | pF |
| Turn–On Delay Time | (VDD =5 V, ID = 10mA,VGS=5V,RL = 500 Ω,RG = 10 Ω) | td(on) | - | 15 | - | ns |
| Rise Time | | tr | - | 35 | - | |
| Turn–Off Delay Time | | td(off) | - | 80 | - | |
| Fall Time | | tf | - | 80 | - | |

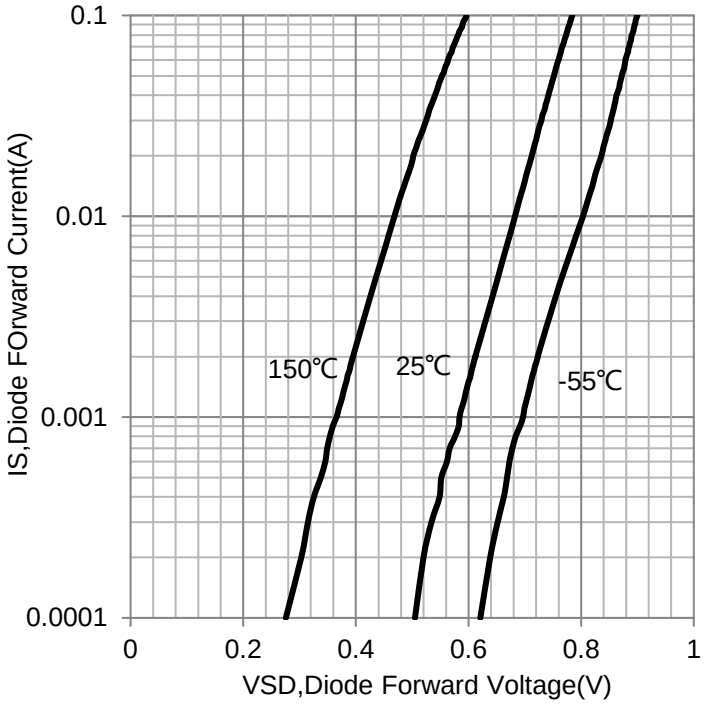
## 5.ELECTRICAL CHARACTERISTICS CURVES



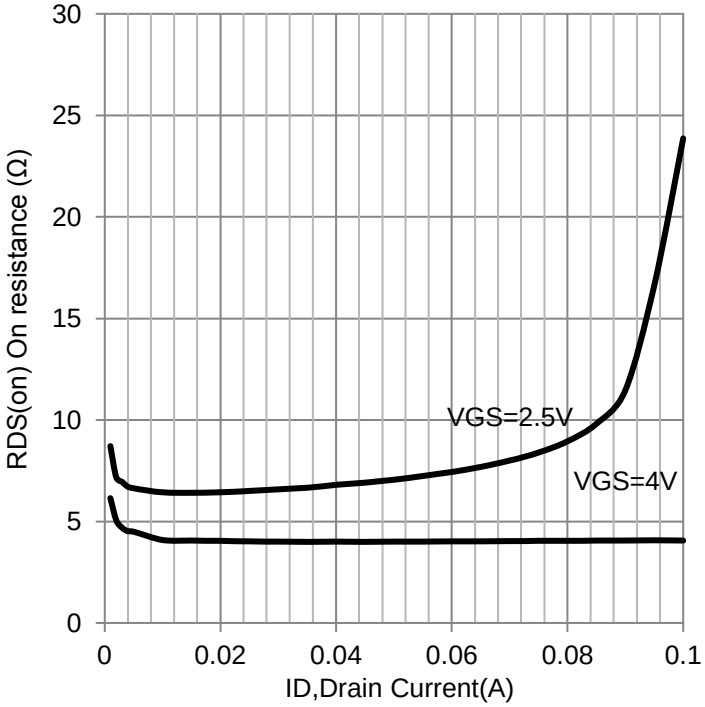

ID vs. VDS




ID vs. VGS

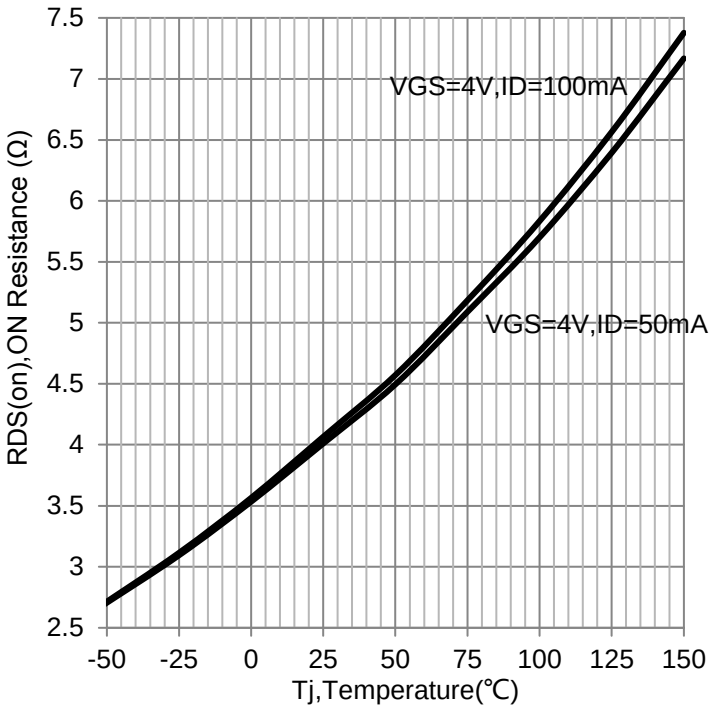



IS vs. VSD

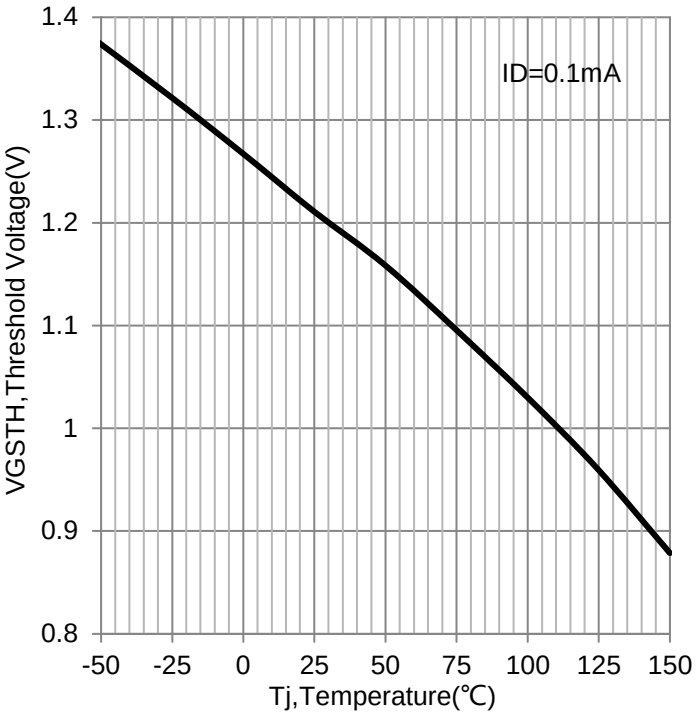



RDS(on) vs. ID

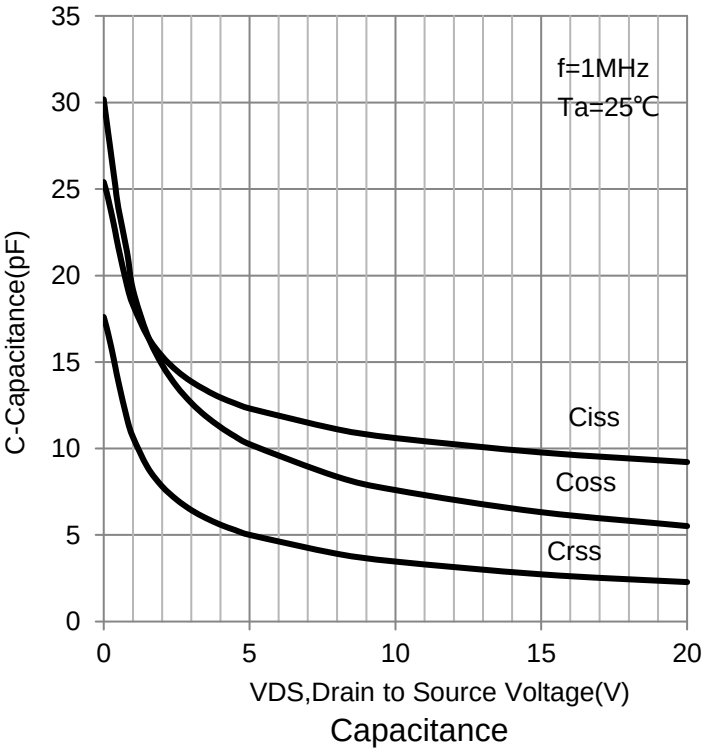
## 5.ELECTRICAL CHARACTERISTICS CURVES(Con.)




RDS(on) vs. Tj

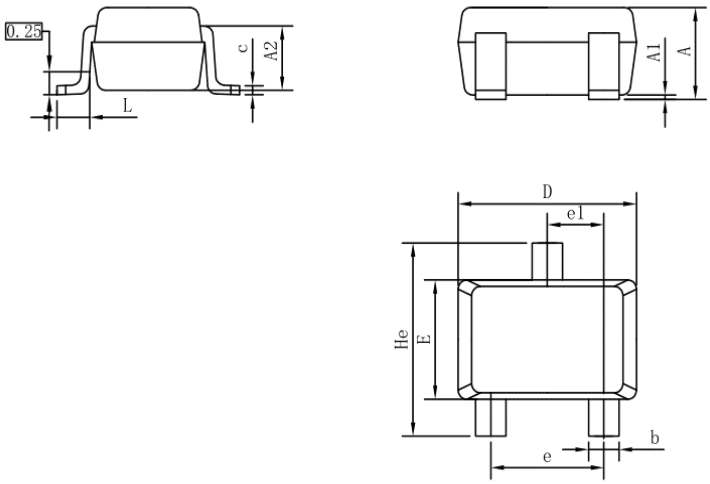



VGSTH vs. Tj



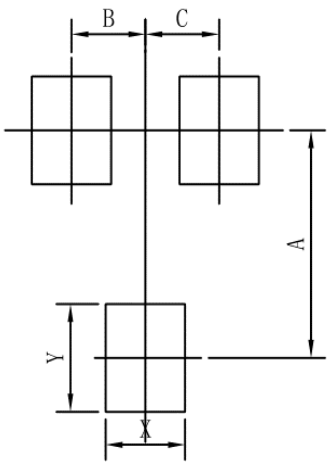

Capacitance

## 6.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 | | | |

## 7.SOLDERING FOOTPRINT




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