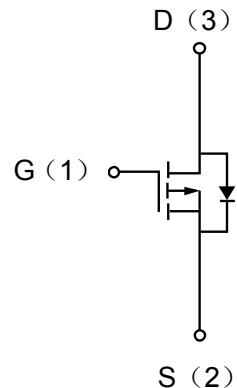


Description

The enhancement mode MOS is extremely high density cell and low on-resistance.

| MOSFET Product Summary | | |
|------------------------|-------------------------------|--------------------|
| V _{DS} (V) | R _{DS(on)} (Ω) | I _D (A) |
| -20 | 0.08 @ V _{GS} =-4.5V | -2.8 |
| | 0.11@ V _{GS} =-2.5V | |



Electrical characteristics per line@25°C(unless otherwise specified)

| Parameter | Symbol | Conditions | Min. | Typ. | Max. | Units |
|-----------------------------------|---------------------|---|-------|------|------|-------|
| OFF CHARACTERISTICS | | | | | | |
| Drain-Source Breakdown Voltage | BV _{DSS} | I _D =-250μA, V _{GS} =0V | -20 | - | - | V |
| Zero Gate Voltage Drain Current | I _{DSS} | V _{DS} =-20V, V _{GS} =0V | - | - | -1 | μA |
| Gate-Body Leakage Current | I _{GSS} | V _{DS} =0V, V _{GS} =±10V | - | - | ±100 | nA |
| Gate Threshold Voltage | V _{GS(th)} | V _{DS} =V _{GS} , I _D =-250μA | -0.45 | | -0.9 | V |
| Static Drain-Source On-Resistance | R _{DS(ON)} | V _{GS} =-4.5V, I _D =-2.8A | - | 0.08 | 0.11 | Ω |
| | | V _{GS} =-2.5V, I _D =-2.0A | - | 0.11 | 0.15 | Ω |
| Forward Tran conductance | g _{FS} | V _{GS} =5V, I _D =50mA, T _A =125°C | | 6.5 | | S |
| DYNAMIC PARAMETERS | | | | | | |
| Input Capacitance | C _{ISS} | V _{GS} =0V, V _{DS} =10V, f=1MHz | - | 360 | | pF |
| Output Capacitance | C _{DSS} | | - | 125 | | pF |
| Reverse Transfer Capacitance | C _{RSS} | | - | 50 | | pF |
| SWITCHING PARAMETERS | | | | | | |
| Turn-On Delay Time | t _{d(on)} | V _{DD} =-6V, V _{GS} =-4.5V, R _L =6Ω, R _G =6Ω, I _D =-1A | - | | 17 | ns |
| Turn-Off Delay Time | t _{d(off)} | | - | | 35 | ns |

Absolute maximum rating@25°C

| Rating | | Symbol | Value | Units |
|-------------------------|-------------------------|----------|---------|-------|
| Drain-Source Voltage | | V_{DS} | -20 | V |
| Gate-Source Voltage | | V_{GS} | ± 8 | V |
| Drain Current | Continuous | I_D | -2.8 | A |
| | Pulsed | I_D | -8 | A |
| Total Power Dissipation | $T_A=25^\circ\text{C}$ | P_D | 900 | mW |
| | $T_A=125^\circ\text{C}$ | P_D | 570 | mW |

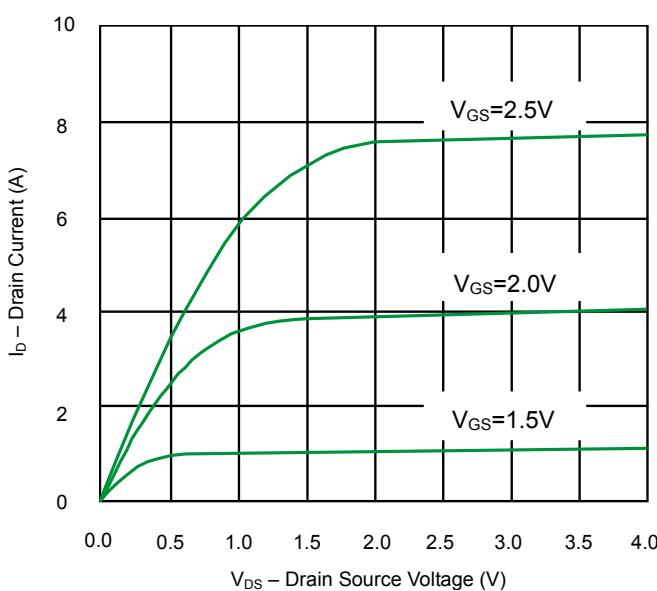
Typical Characteristics

Fig 1. Output Characteristics

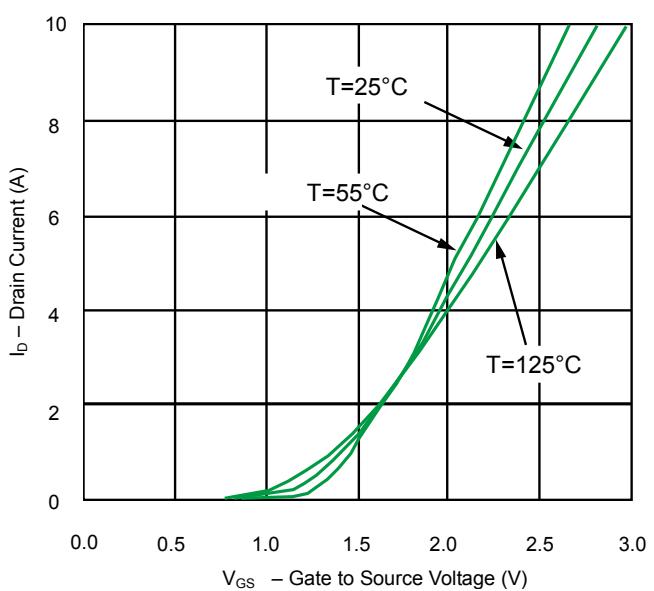


Fig 2. Transfer Characteristics

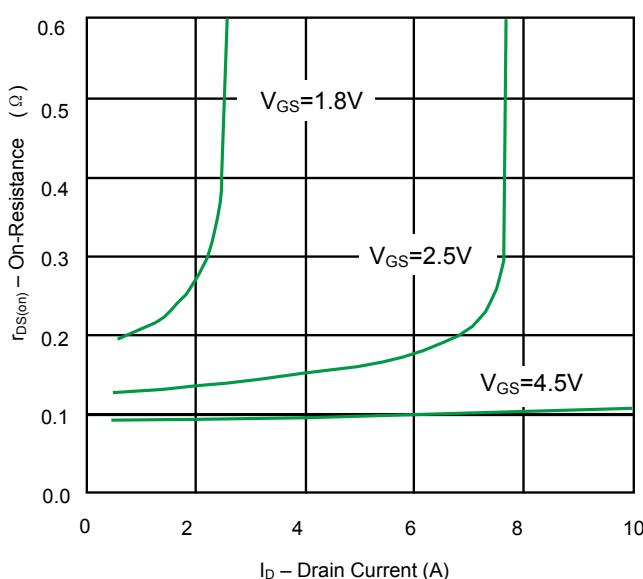


Fig 3. On-Resistance vs. Drain Current

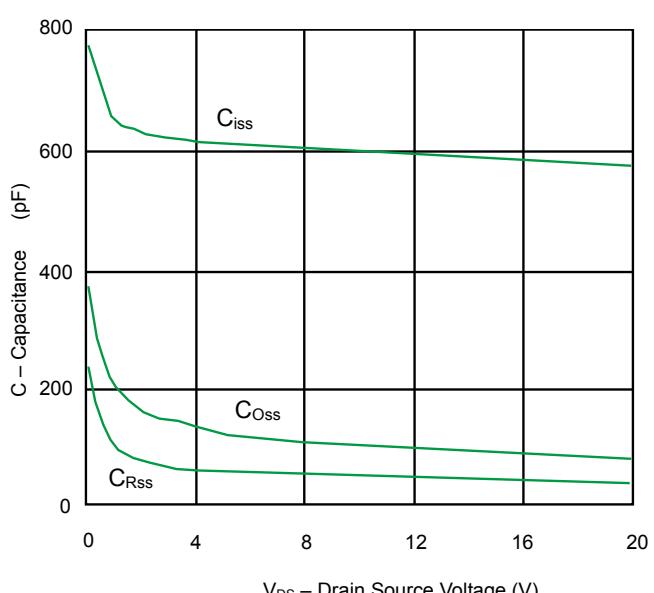
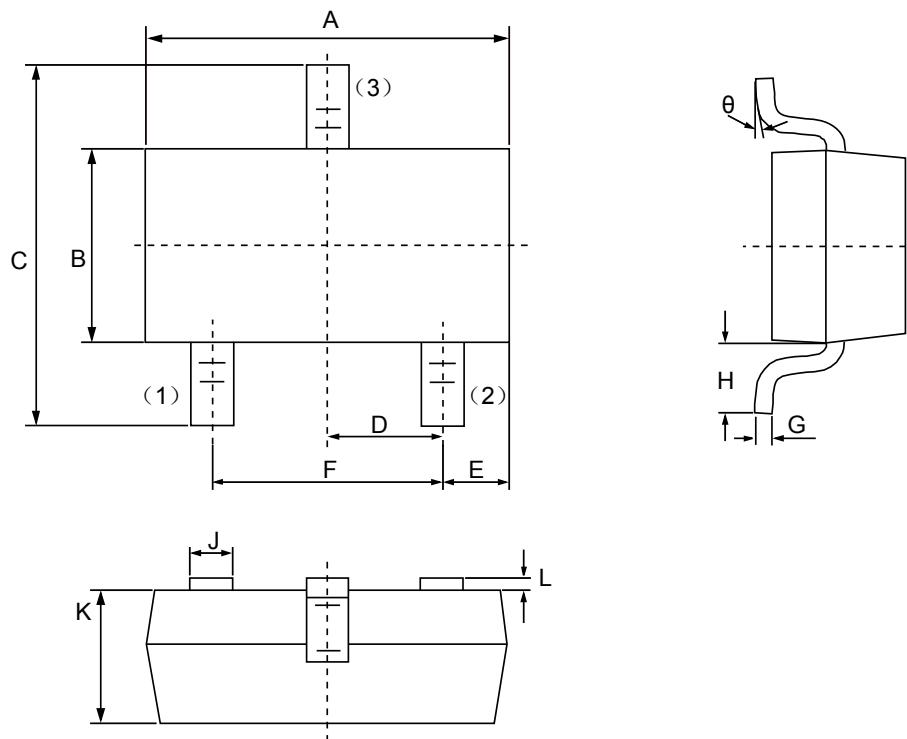


Fig 4. Capacitance

Product dimension(SOT-23)



| Dim | Millimeters | | Inches | |
|-----|-------------|-------|--------|--------|
| | MIN | MAX | MIN | MAX |
| A | 2.80 | 3.00 | 0.1102 | 0.1197 |
| B | 1.20 | 1.40 | 0.0472 | 0.0551 |
| C | 2.10 | 2.50 | 0.0830 | 0.0984 |
| D | 0.89 | 1.02 | 0.0350 | 0.0401 |
| E | 0.45 | 0.60 | 0.0177 | 0.0236 |
| F | 1.78 | 2.04 | 0.0701 | 0.0807 |
| G | 0.085 | 0.177 | 0.0034 | 0.0070 |
| H | 0.45 | 0.60 | 0.0180 | 0.0236 |
| J | 0.37 | 0.50 | 0.0150 | 0.0200 |
| K | 0.89 | 1.11 | 0.0350 | 0.0440 |
| L | 0.013 | 0.100 | 0.0005 | 0.0040 |
| θ | 0° | 10° | 0° | 10° |

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