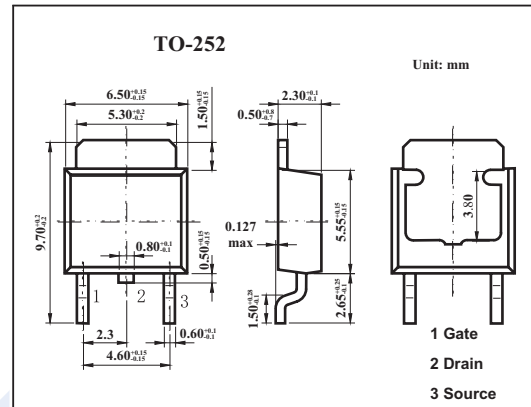


Silicon N-Channel MOSFET 2SK2715

■ Features

- Low on-resistance.
- Fast switching speed.
- Wide SOA (safe operating area).
- Easily designed drive circuits.
- Easy to parallel.



■ Absolute Maximum Ratings Ta = 25°C

| Parameter | Symbol | Rating | Unit |
|-------------------------|-------------------|-------------|------|
| Drain to source voltage | V _{DSS} | 500 | V |
| Gate to source voltage | V _{GS} | ±30 | V |
| Drain current | I _D | 2 | A |
| | I _{DP} * | 6 | A |
| Power dissipation | P _D | 20 | W |
| Channel temperature | T _{ch} | 150 | °C |
| Storage temperature | T _{stg} | -55 to +150 | °C |

* PW ≤ 10 μs, Duty Cycle ≤ 1%

■ Electrical Characteristics Ta = 25°C

| Parameter | Symbol | Testconditions | Min | Typ | Max | Unit | |
|-------------------------------------|---------------------|--|-----|-----|------|------|----|
| Drain source breakdown voltage | V _{DSS} | I _D =1mA, V _{GS} =0V | 500 | | | V | |
| Drain cut-off current | I _{DSS} | V _{DS} =500V, V _{GS} =0 | | | 100 | μA | |
| Gate leakage current | I _{GSS} | V _{GS} =±30V, V _{DS} =0 | | | ±100 | nA | |
| Gate threshold voltage | V _{GS(th)} | V _{DS} =10V, I _D =1mA | 2.0 | | 4.0 | V | |
| Forward transfer admittance | Y _{fs} | V _{DS} =10V, I _D =1A | 0.6 | 1.5 | | S | |
| Drain to source on-state resistance | R _{DS(on)} | V _{GS} =10V, I _D =1A | | 3.0 | 4.0 | Ω | |
| Input capacitance | C _{iss} | V _{DS} =10V, V _{GS} =0, f=1MHZ | | 280 | | pF | |
| Output capacitance | C _{oss} | | | | 58 | | pF |
| Reverse transfer capacitance | C _{rss} | | | | 23 | | pF |
| Turn-on delay time | t _{on} | I _D =1A, V _{GS(on)} =10V, R _G =10 Ω, R _L =150 Ω, V _{DD} =150V | | 10 | | ns | |
| Rise time | t _r | | | | 12 | | ns |
| Turn-off delay time | t _{off} | | | | 30 | | ns |
| Fall time | t _f | | | | 63 | | ns |