

2SK1103

Silicon N-Channel Junction FET

For switching

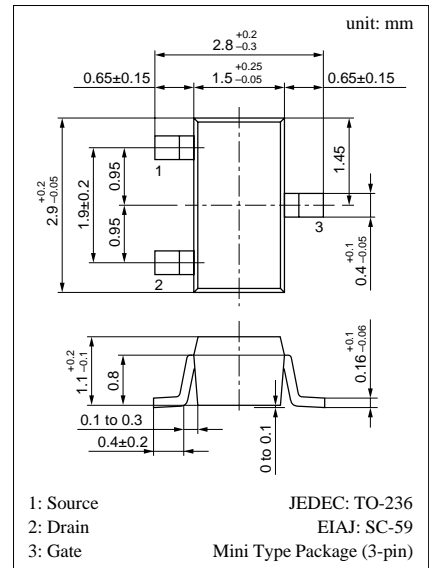
Complementary to 2SJ163

■ Features

- Low ON-resistance
- Low-noise characteristics

■ Absolute Maximum Ratings (Ta = 25°C)

| Parameter | Symbol | Ratings | Unit |
|-----------------------------|-----------|-------------|------|
| Gate to Drain voltage | V_{GDS} | -65 | V |
| Drain current | I_D | 20 | mA |
| Gate current | I_G | 10 | mA |
| Allowable power dissipation | P_D | 150 | mW |
| Channel temperature | T_{ch} | 150 | °C |
| Storage temperature | T_{stg} | -55 to +150 | °C |



Marking Symbol (Example): 4L

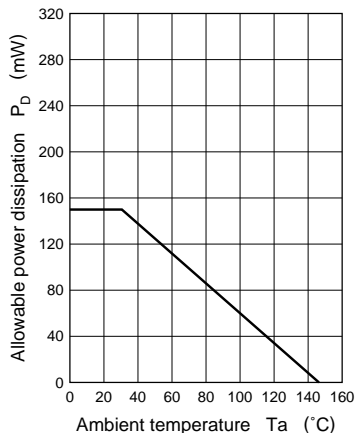
■ Electrical Characteristics (Ta = 25°C)

| Parameter | Symbol | Conditions | min | typ | max | Unit |
|--|--------------|--------------------------------------|-----|------|------|----------|
| Drain to Source cut-off current | I_{DSS}^* | $V_{DS} = 10V, V_{GS} = 0$ | 0.2 | | 6 | mA |
| Gate to Source leakage current | I_{GSS} | $V_{GS} = -30V, V_{DS} = 0$ | | | -10 | nA |
| Gate to Drain voltage | V_{GDS} | $I_G = -10\mu A, V_{DS} = 0$ | -65 | | | V |
| Gate to Source cut-off voltage | V_{GSC} | $V_{DS} = 10V, I_D = 10\mu A$ | | -1.5 | -3.5 | V |
| Forward transfer admittance | $ Y_{fs} $ | $V_{DS} = 10V, I_D = 1mA, f = 1kHz$ | 1.8 | 2.5 | | mS |
| Drain to Source ON-resistance | $R_{DS(on)}$ | $V_{DS} = 10mV, V_{GS} = 0$ | | 300 | | Ω |
| Input capacitance (Common Source) | C_{iss} | $V_{DS} = 10V, V_{GS} = 0, f = 1MHz$ | | 7 | | pF |
| Reverse transfer capacitance (Common Source) | C_{rss} | | | 1.5 | | pF |

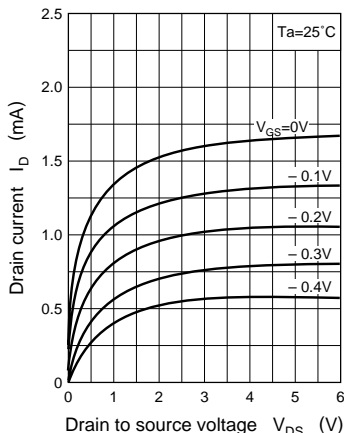
* I_{DSS} rank classification

| Runk | O | P | Q | R |
|----------------|----------|------------|--------|----------|
| I_{DSS} (mA) | 0.2 to 1 | 0.6 to 1.5 | 1 to 3 | 2.5 to 6 |
| Marking Symbol | 4LO | 4LP | 4LQ | 4LR |

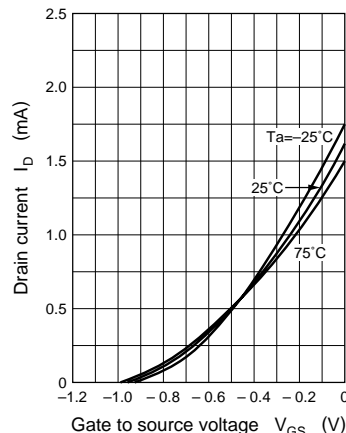
$P_D - T_a$



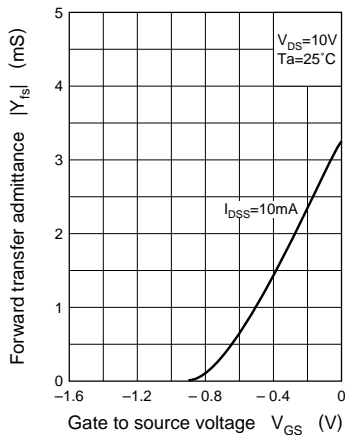
$I_D - V_{DS}$



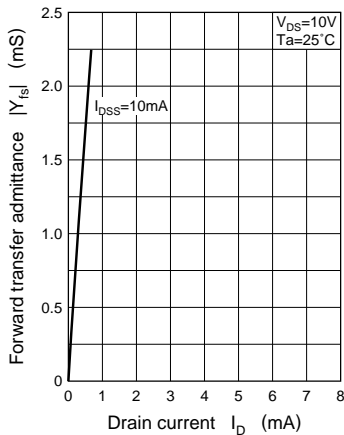
$I_D - V_{GS}$



$|Y_{fs}| - V_{GS}$



$|Y_{fs}| - I_D$



$C_{iss}, C_{oss}, C_{rss} - V_{DS}$

