
2SK1070

Silicon N-Channel Junction FET

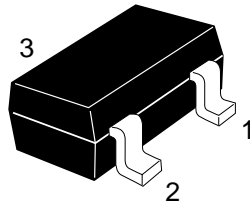
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Application

Low frequency / High frequency amplifier

Outline

MPAK



1. Drain
2. Source
3. Gate

2SK1070

Absolute Maximum Ratings (Ta = 25°C)

| Item | Symbol | Ratings | Unit |
|---------------------------|-----------|-------------|------|
| Gate to drain voltage | V_{GDO} | -22 | V |
| Gate to source voltage | V_{GSO} | -22 | V |
| Drain current | I_D | 50 | mA |
| Gate current | I_G | 10 | mA |
| Channel power dissipation | Pch | 150 | mW |
| Channel temperature | Tch | 150 | °C |
| Storage temperature | Tstg | -55 to +150 | °C |

Electrical Characteristics (Ta = 25°C)

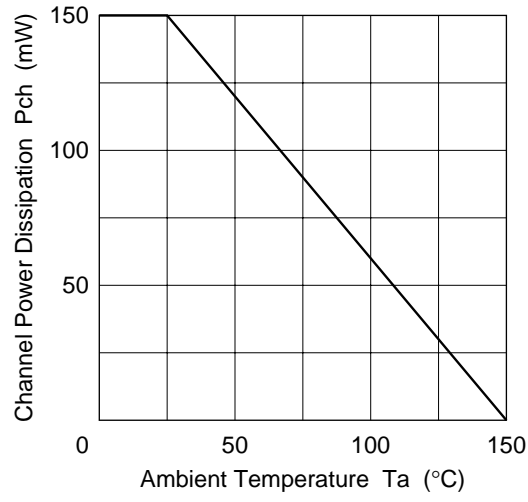
| Item | Symbol | Min | Typ | Max | Unit | Test conditions |
|----------------------------------|----------------|-----|-----|------|------|--|
| Gate cutoff current | I_{GSS} | — | — | -10 | nA | $V_{GS} = -15\text{ V}, V_{DS} = 0$ |
| Gate to source breakdown voltage | $V_{(BR)GSS}$ | -22 | — | — | V | $I_G = -10\ \mu\text{A}, V_{DS} = 0$ |
| Drain current | I_{DSS}^{*1} | 6 | — | 40 | mA | $V_{DS} = 5\text{ V}, V_{GS} = 0$, Pulse test |
| Gate to source cutoff voltage | $V_{GS(off)}$ | 0 | — | -2.5 | V | $V_{DS} = 5\text{ V}, I_D = 10\ \mu\text{A}$ |
| Forward transfer admittance | $ y_{fs} $ | 20 | 30 | — | mS | $V_{DS} = 5\text{ V}, V_{GS} = 0$, $f = 1\text{ kHz}$ |
| Input capacitance | Ciss | — | 9 | — | pF | $V_{DS} = 5\text{ V}, V_{GS} = 0$, $f = 1\text{ MHz}$ |

Note: 1. The 2SK1070 is grouped by I_{DSS} as follows.

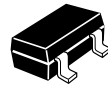
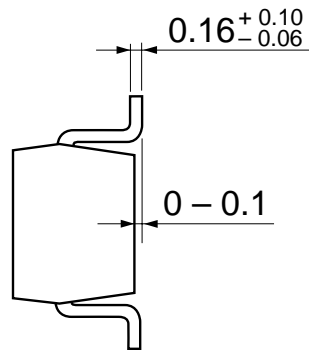
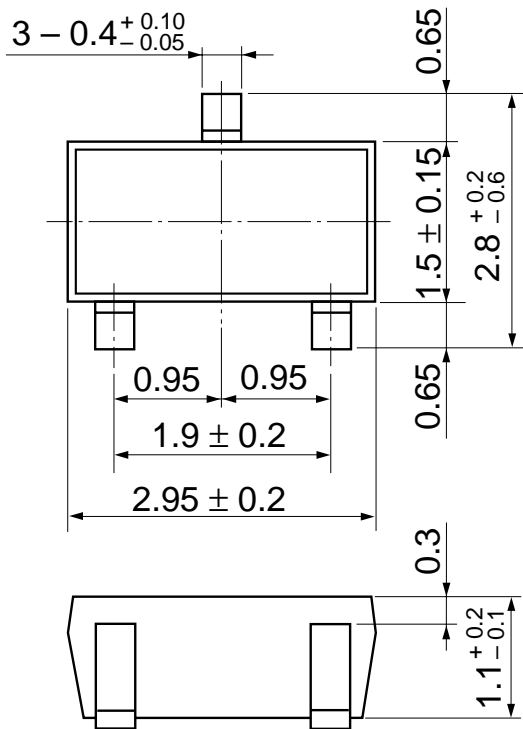
| Grade | B | C | D | E |
|-----------|---------|----------|----------|----------|
| Mark | PIB | PIC | PID | PIE |
| I_{DSS} | 6 to 14 | 12 to 22 | 18 to 30 | 27 to 40 |

See characteristic curves of 2SK435.

Maximum Channel Dissipation Curve



Unit: mm



| | |
|--------------------------|----------|
| Hitachi Code | MPAK |
| JEDEC | — |
| EIAJ | Conforms |
| Weight (reference value) | 0.011 g |

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