# 2SK360

Silicon N-Channel MOS FET

HITACHI

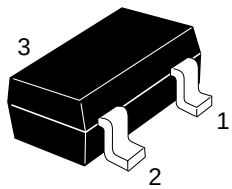
ADE-208-1170 (Z)
1st. Edition
Mar. 2001

## Application

VHF amplifier

## Outline

MPAK




1. Gate
2. Drain
3. Source

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## Absolute Maximum Ratings (Ta = 25°C)

| Item | Symbol | Ratings | Unit |
|---|---|---|---|
| Drain to source voltage | $V_{DSX}$*[1] | 20 | V |
| Gate to source voltage | $V_{GSS}$ | ±5 | V |
| Drain current | $I_D$ | 30 | mA |
| Gate current | $I_G$ | ±1 | mA |
| Channel power dissipation | Pch | 150 | mW |
| Channel temperature | Tch | 150 | °C |
| Storage temperature | Tstg | –55 to +150 | °C |

Note: 1. $V_{GS}$ = –4 V

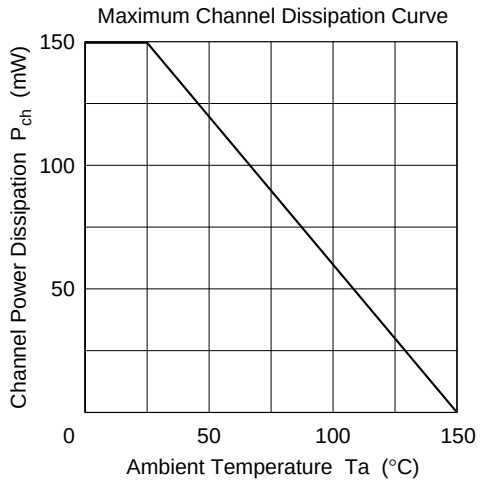
## Electrical Characteristics (Ta = 25°C)

| Item | Symbol | Min | Typ | Max | Unit | Test conditions |
|---|---|---|---|---|---|---|
| Drain to source breakdown voltage | $V_{(BR)DSX}$ | 20 | — | — | V | $I_D$ = 100 µA, $V_{GS}$ = –4 V |
| Gate cutoff current | $I_{GSS}$ | — | — | ±20 | nA | $V_{GS}$ = ±5 V, $V_{DS}$ = 0 |
| Drain current | $I_{DSS}$*[1] | 4 | — | 12 | mA | $V_{DS}$ = 10 V, $V_{GS}$ = 0 |
| Gate to source cutoff voltage | $V_{GS(off)}$ | 0 | — | –2.0 | V | $V_{DS}$ = 10 V, $I_D$ = 10 µA |
| Forward transfer admittance | $\|y_{fs}\|$ | 8 | 14 | — | mS | $V_{DS}$ = 10 V, $V_{GS}$ = 0, f = 1 kHz |
| Input capacitance | Ciss | — | 2.5 | — | pF | $V_{DS}$ = 10 V, $V_{GS}$ = 0, f = 1 MHz |
| Output capacitance | Coss | — | 1.6 | — | pF | |
| Reverse transfer capacitance | Crss | — | 0.03 | — | pF | |
| Power gain | PG | — | 30 | — | dB | $V_{DS}$ = 10 V, $V_{GS}$ = 0, f = 100 MHz |
| Noise figure | NF | — | 2.0 | — | dB | |

Note: 1. The 2SK360 is grouped by $I_{DSS}$ as follows.

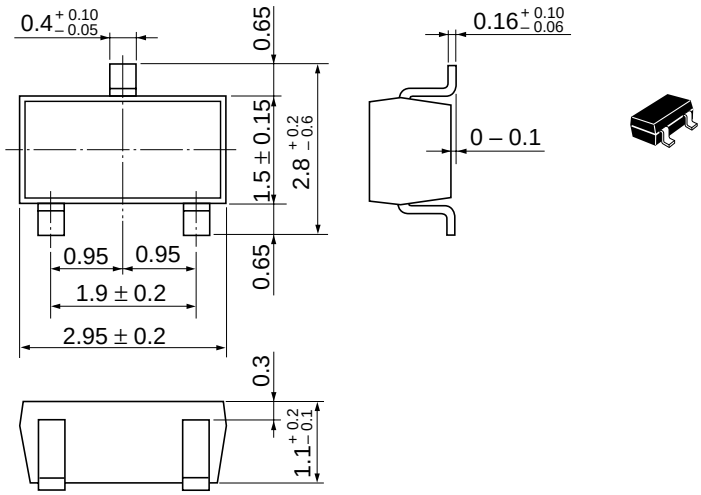
| Grade | D | E | F |
|---|---|---|---|
| Mark | IGD | IGE | IGF |
| $I_{DSS}$ | 4 to 8 | 6 to 10 | 8 to 12 |

See characteristic curves of 2SK359.


Maximum Channel Dissipation Curve
Channel Power Dissipation $P_{ch}$ (mW)
150
100
50
0
50
100
150
Ambient Temperature Ta (°C)

## Package Dimensions

As of January, 2001
Unit: mm




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

## Cautions

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