
2SJ351, 2SJ352

Silicon P-Channel MOS FET

HITACHI

ADE-208-143
1st. Edition

Application

Low frequency power amplifier

Complementary pair with 2SK2220, 2SK2221

Features

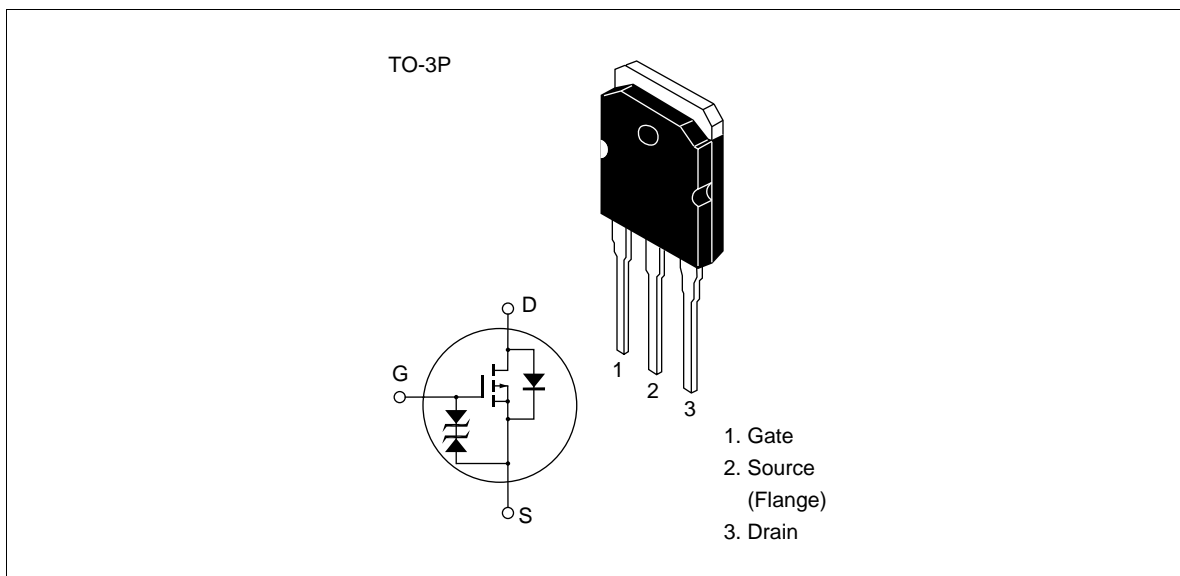
- High power gain
- Excellent frequency response
- High speed switching
- Wide area of safe operation
- Enhancement-mode
- Good complementary characteristics
- Equipped with gate protection diodes

Ordering Information

| Type No. | V_{DSX} |
|----------|-----------|
| 2SJ351 | -180 V |
| 2SJ352 | -200 V |

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Outline



Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

| Item | | Symbol | Ratings | Unit |
|---|--------|---------------|-------------|------------------|
| Drain to source voltage | 2SJ351 | V_{DSX} | -180 | V |
| | 2SJ352 | | -200 | |
| Gate to source voltage | | V_{GSS} | ± 20 | V |
| Drain current | | I_D | -8 | A |
| Body to drain diode reverse drain current | | I_{DR} | -8 | A |
| Channel dissipation | | P_{ch}^{*1} | 100 | W |
| Channel temperature | | T_{ch} | 150 | $^\circ\text{C}$ |
| Storage temperature | | T_{stg} | -55 to +150 | $^\circ\text{C}$ |

Note: 1. Value at $T_c = 25^\circ\text{C}$

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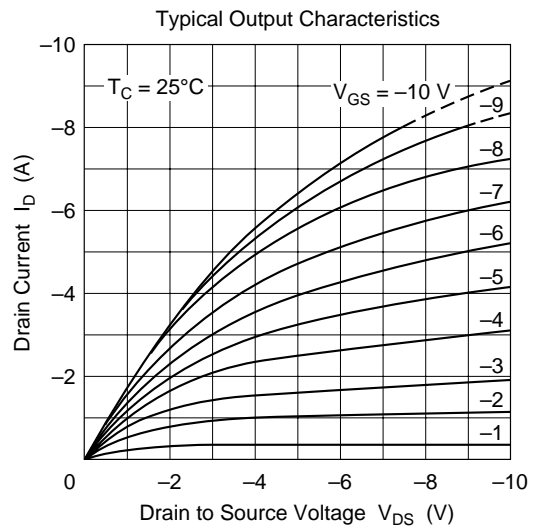
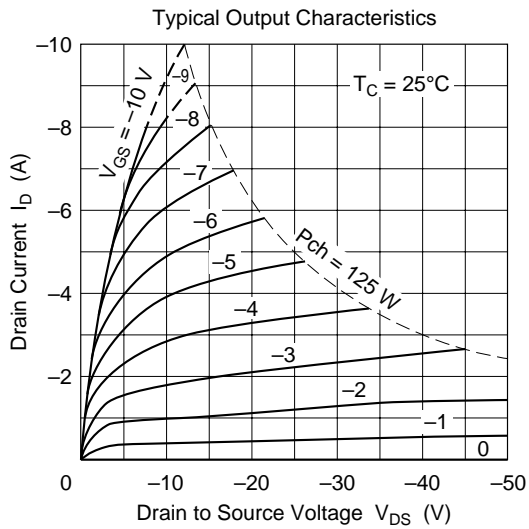
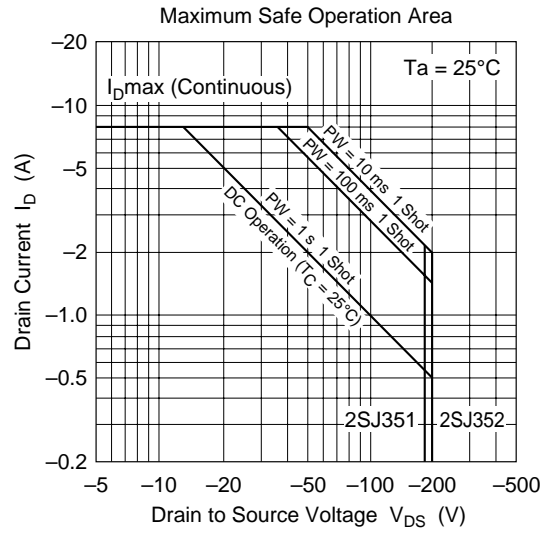
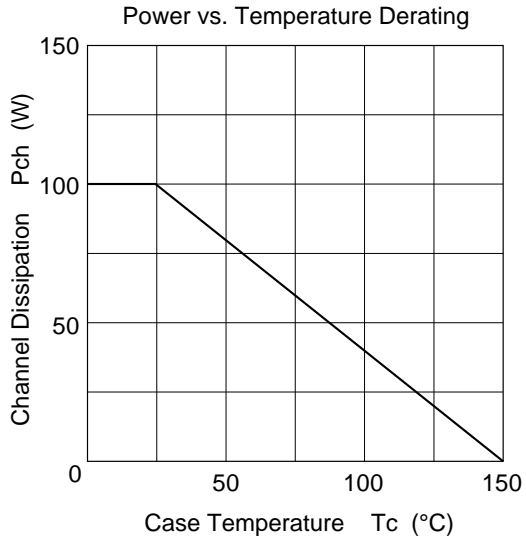
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Electrical Characteristics (Ta = 25°C)

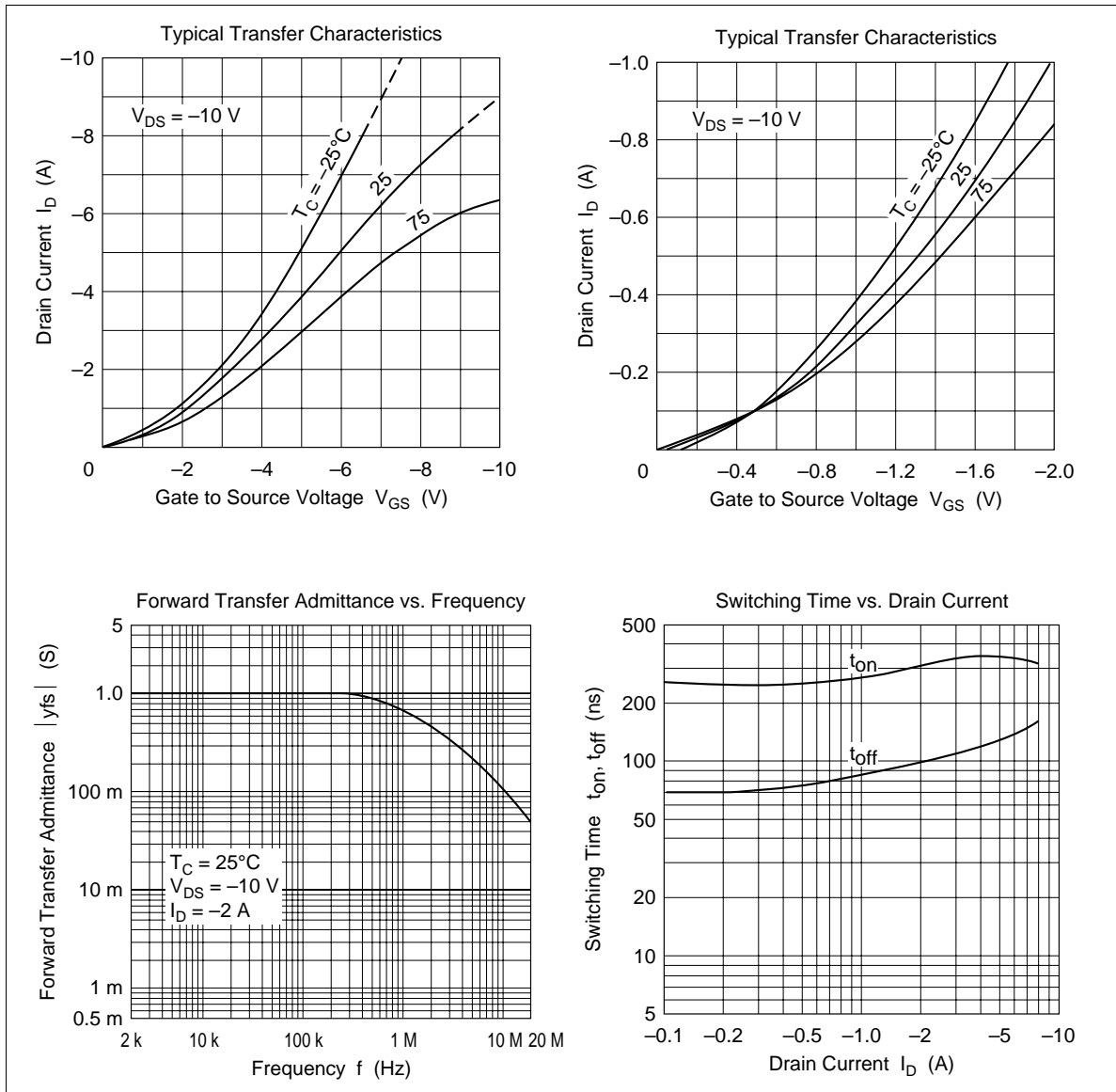
| Item | | Symbol | Min | Typ | Max | Unit | Test conditions |
|---------------------------------------|------------------|---------------|--------------|------|-------|------|--|
| Drain to source breakdown voltage | 2SJ351 2SJ352 | $V_{(BR)DSX}$ | -180 -200 | — | — | V | $I_D = -10 \text{ mA}$, $V_{GS} = 10 \text{ V}$ |
| Gate to source breakdown voltage | | $V_{(BR)GSS}$ | ± 20 | — | — | V | $I_G = \pm 100 \mu\text{A}$, $V_{DS} = 0$ |
| Gate to source cutoff voltage | | $V_{GS(off)}$ | -0.15 | — | -1.45 | V | $I_D = -100 \text{ mA}$, $V_{DS} = -10 \text{ V}$ |
| Drain to source saturation voltage | | $V_{DS(sat)}$ | — | — | -12 | V | $I_D = -8 \text{ A}$, $V_{GD} = 0^{*1}$ |
| Forward transfer admittance | | $ y_{fs} $ | 0.7 | 1.0 | 1.4 | S | $I_D = -3 \text{ A}$, $V_{DS} = -10 \text{ V}^{*1}$ |
| Input capacitance | | Ciss | — | 800 | — | pF | $V_{GS} = 5 \text{ V}$, $V_{DS} = -10 \text{ V}$, $f = 1 \text{ MHz}$ |
| Output capacitance | | Coss | — | 1000 | — | pF | |
| Reverse transfer capacitance | | Crss | — | 18 | — | pF | |
| Turn-on time | | t_{on} | — | 320 | — | ns | $V_{DD} = -30 \text{ V}$, $I_D = -4 \text{ A}$ |
| Turn-off time | | t_{off} | — | 120 | — | ns | |

Note: 1. Pulse test

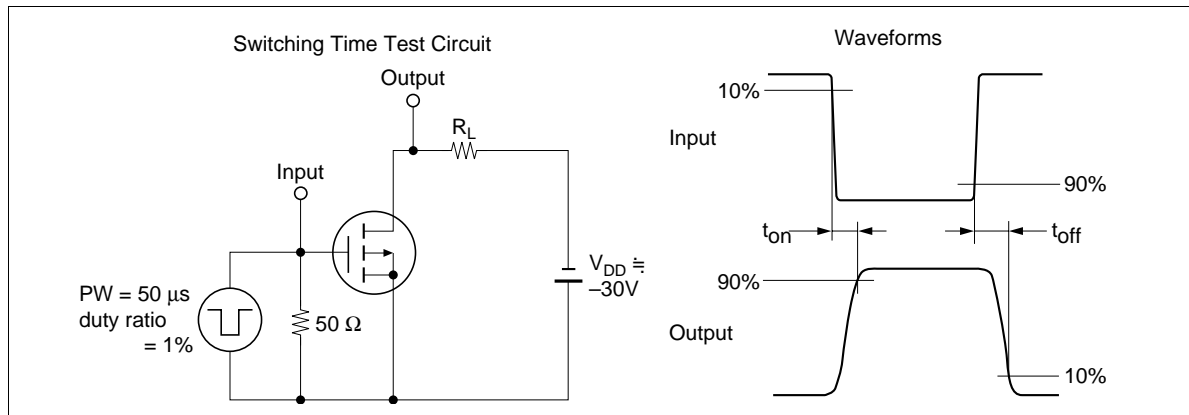
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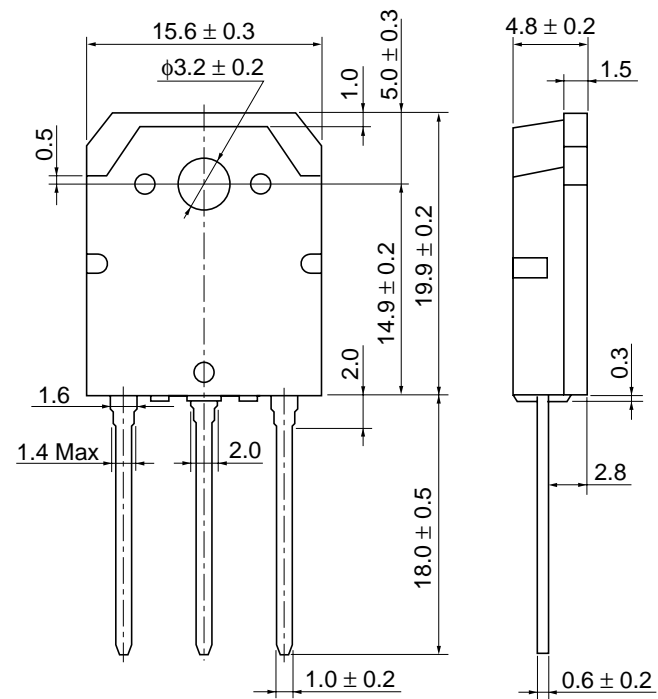
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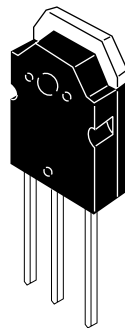
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Unit: mm



| | |
|--------------------------|----------|
| Hitachi Code | TO-3P |
| JEDEC | — |
| EIAJ | Conforms |
| Weight (reference value) | 5.0 g |

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