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| SANYO | No.1790B | 2SK546 |
| | | N-Channel Junction Silicon FET |

Impedance Converter Applications

Applications

- Impedance conversion
- Infrared sensor

Features

- Low I_{GSS}
- Small c_{iss}

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

| | | | unit |
|-----------------------------|-----------|-------------|------------------|
| Drain to Source Voltage | V_{DSS} | 40 | V |
| Gate to Drain Voltage | V_{GDS} | -40 | V |
| Gate Current | I_G | 10 | mA |
| Drain Current | I_D | 1 | mA |
| Allowable Power Dissipation | P_D | 100 | mW |
| Junction Temperature | T_j | 125 | $^\circ\text{C}$ |
| Storage Temperature | T_{stg} | -55 to +125 | $^\circ\text{C}$ |

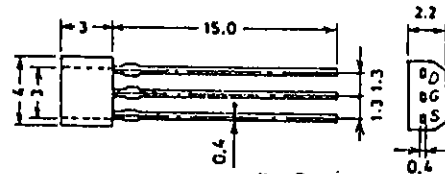
Electrical Characteristics at $T_a=25^\circ\text{C}$

| | | | min | typ | max | unit |
|---------------------------------|---------------|--|------|------|------|---------------|
| Gate to Drain Breakdown Voltage | $V(BR)_{GDS}$ | $I_G=-10\mu\text{A}, V_{DS}=0$ | -40 | | | V |
| Gate Cutoff Current | I_{GSS} | $V_{GS}=-20\text{V}, V_{DS}=0$ | | | -500 | pA |
| Cutoff Voltage | $V_{GS(off)}$ | $V_{DS}=10\text{V}, I_D=1\mu\text{A}$ | -1.5 | -4.0 | | V |
| Drain Current | I_{DSS} | $V_{DS}=10\text{V}, V_{GS}=0$ | 30* | | 300* | μA |
| Forward Transfer Admittance | $ Y_{fs} $ | $V_{DS}=10\text{V}, V_{GS}=0, f=1\text{KHz}$ | 0.05 | 0.13 | | mS |
| Input Capacitance | c_{iss} | $V_{DS}=10\text{V}, V_{GS}=0, f=1\text{MHz}$ | | 1.9 | | pF |
| Reverse Transfer Capacitance | c_{rss} | $V_{DS}=10\text{V}, V_{GS}=0, f=1\text{MHz}$ | | 0.7 | | pF |

* The 2SK546 is classified by I_{DSS} as follows (unit: μA):

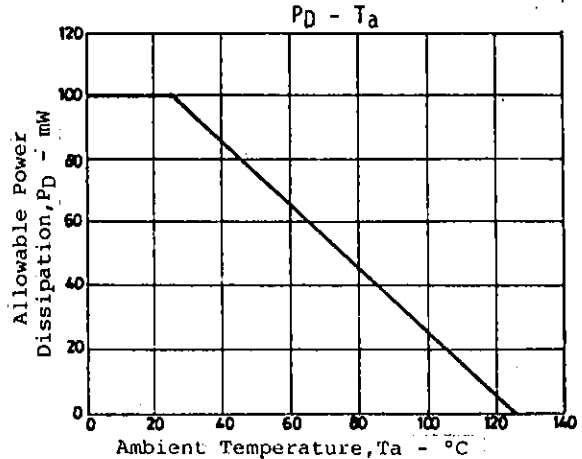
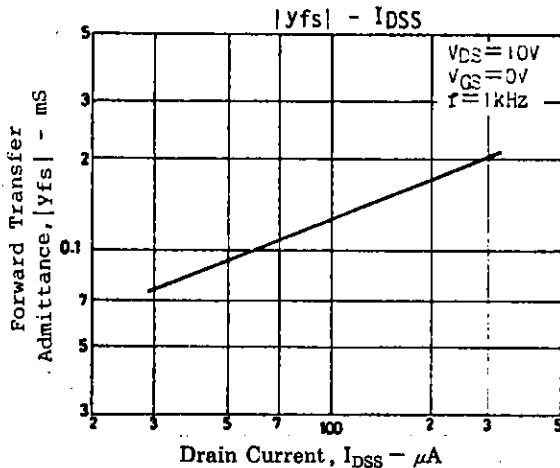
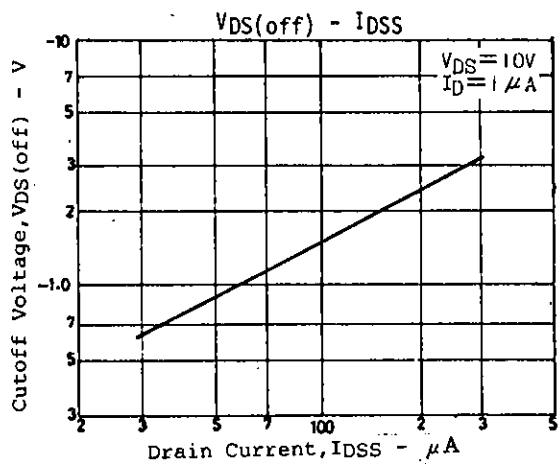
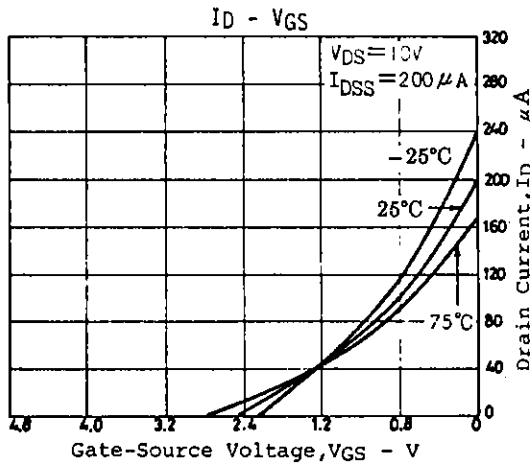
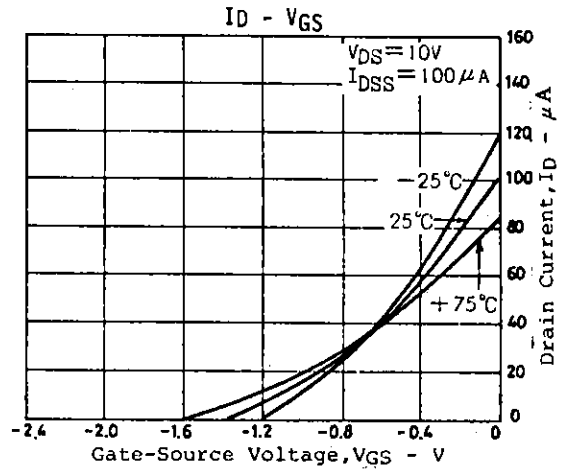
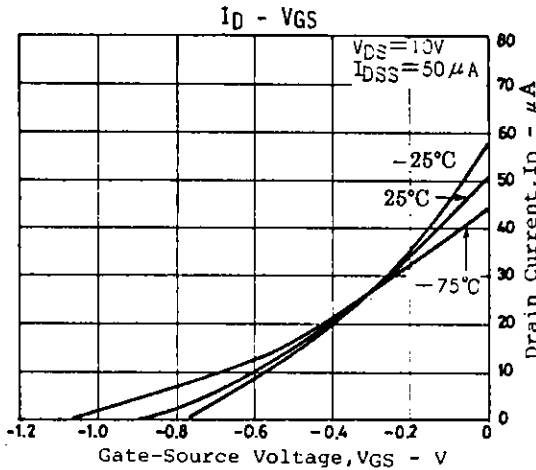
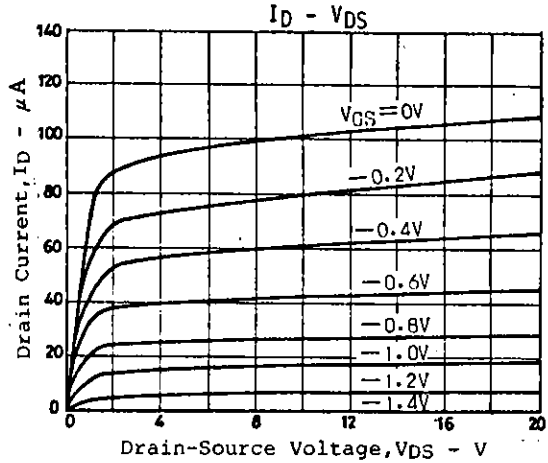
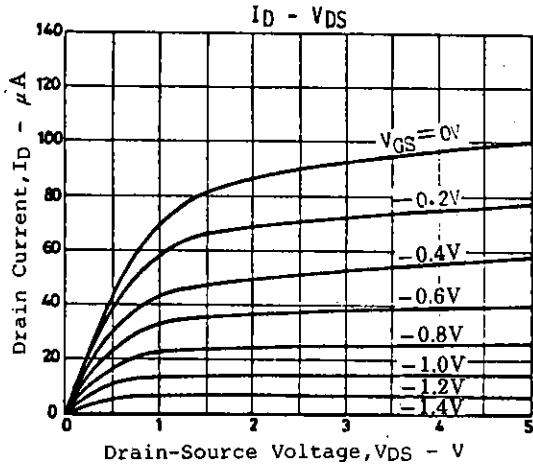
| | | | | | | | | |
|----|---|----|----|---|-----|-----|---|-----|
| 30 | I | 80 | 60 | J | 180 | 150 | K | 300 |
|----|---|----|----|---|-----|-----|---|-----|

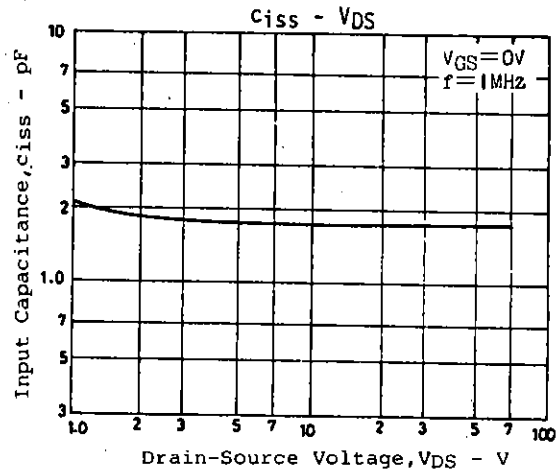
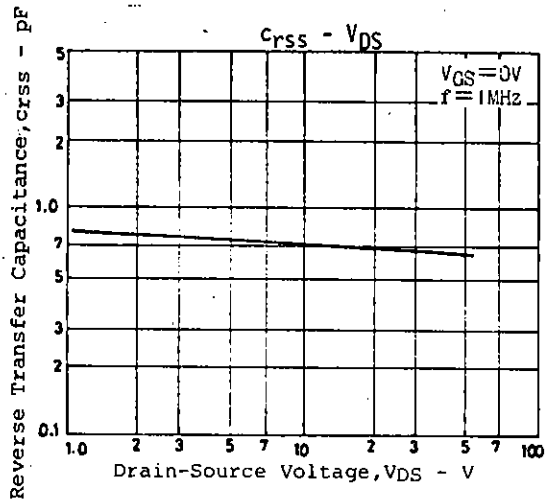
Package Dimensions 2034
(unit: mm)



D: Drain
G: Gate
S: Source

SANYO: SPA





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