

| | | |
|--------------|----------|--|
| SANYO | No.2563C | 2SK669 |
| | | N-Channel Enhancement MOS Silicon FET Very High-Speed Switch, Analog Switch Applications |

Applications

- Analog switches, low-pass filters, very high-speed switches

Features

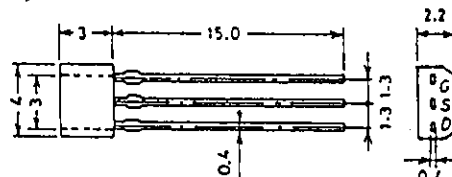
- Large $|y_{fs}|$
- Enhancement type
- Small ON resistance

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

| | | | unit |
|-----------------------------|-----------|-------------|------------------|
| Drain to Source Voltage | V_{DS} | 50 | V |
| Gate to Source Voltage | V_{GS} | ± 12 | V |
| Drain Current | I_D | 100 | mA |
| Drain Current (Pulse) | I_{DP} | 300 | mA |
| Allowable Power Dissipation | P_D | 200 | mW |
| Channel Temperature | T_{ch} | 125 | $^\circ\text{C}$ |
| Storage Temperature | T_{stg} | -55 to +125 | $^\circ\text{C}$ |

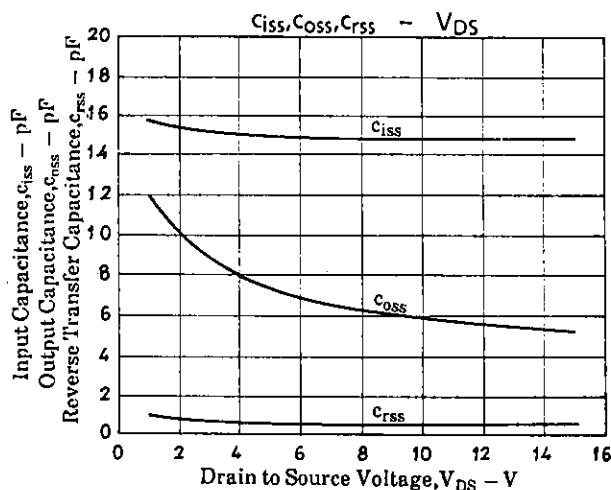
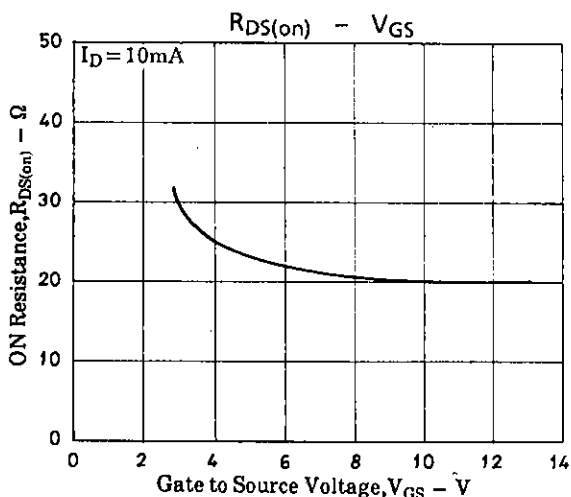
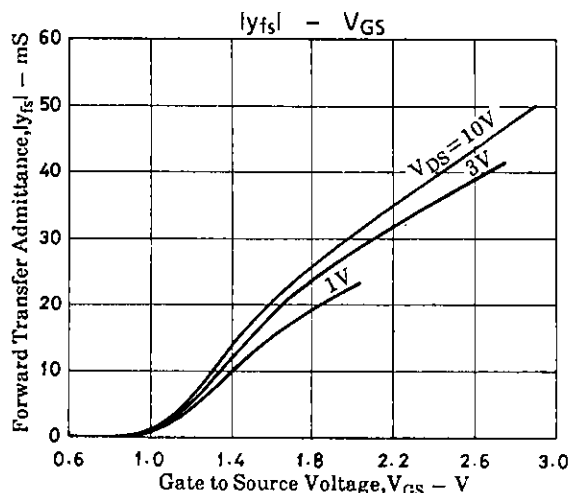
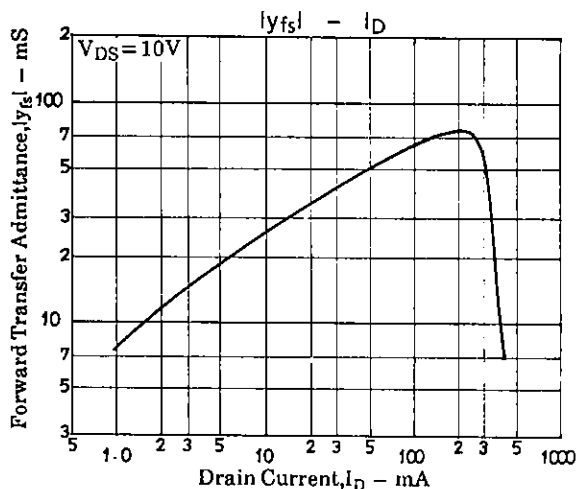
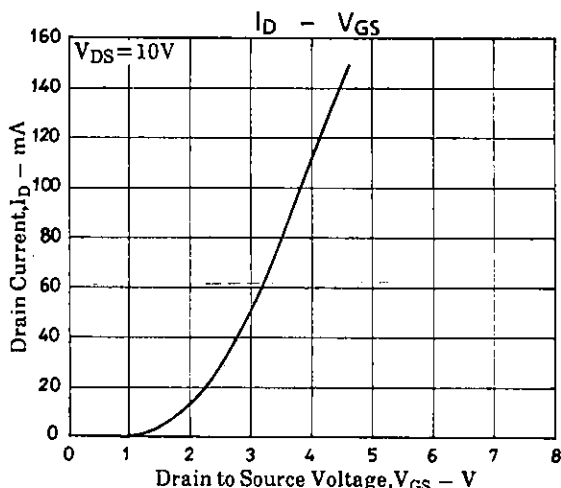
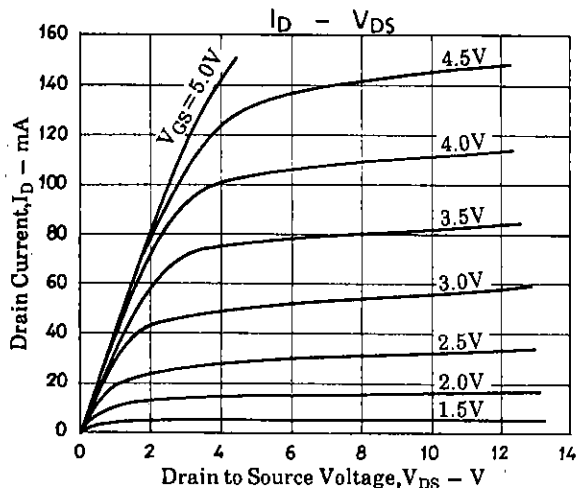
Electrical Characteristics at $T_a = 25^\circ\text{C}$

| | | | min | typ | max | unit |
|-----------------------------------|---------------|---|-----|------|-----|---------------|
| Drain to Source Breakdown Voltage | $V_{(BR)DS}$ | $I_D = 10\mu\text{A}, V_{GS} = 0$ | 50 | | | V |
| Gate Cutoff Current | I_{GSS} | $V_{GS} = 10\text{V}, V_{DS} = 0$ | | 0.01 | 10 | nA |
| Cutoff Voltage | $V_{GS(off)}$ | $V_{DS} = 10\text{V}, I_D = 100\mu\text{A}$ | 0.3 | 0.9 | 1.5 | V |
| Drain Current | I_{DSS} | $V_{DS} = 20\text{V}, V_{GS} = 0\text{V}$ | | | 1.0 | μA |
| Forward Transfer Admittance | $ y_{fs} $ | $V_{DS} = 10\text{V}, I_D = 50\text{mA}, f = 1\text{kHz}$ | 25 | 40 | | mS |
| Input Capacitance | c_{iss} | $V_{DS} = 10\text{V}, V_{GS} = 0, f = 1\text{MHz}$ | | 15 | | pF |
| Output Capacitance | c_{oss} | $V_{DS} = 10\text{V}, V_{GS} = 0, f = 1\text{MHz}$ | | 6 | | pF |
| Reverse Transfer Capacitance | c_{rss} | $V_{DS} = 10\text{V}, V_{GS} = 0, f = 1\text{MHz}$ | | 0.5 | | pF |
| ON Resistance | $R_{DS(on)}$ | $V_{DS} = 10\text{V}, I_D = 10\text{mA}$ | | 20 | | Ω |

Package Dimensions 2040
(unit: mm)

G: Gate
S: Source
D: Drain

SANYO: SPA



■ No products described or contained herein are intended for use in surgical implants, life-support systems, aerospace equipment, nuclear power control systems, vehicles, disaster/crime-prevention equipment and the like, the failure of which may directly or indirectly cause injury, death or property loss.

■ Anyone purchasing any products described or contained herein for an above-mentioned use shall:

- ① Accept full responsibility and indemnify and defend SANYO ELECTRIC CO., LTD., its affiliates, subsidiaries and distributors and all their officers and employees, jointly and severally, against any and all claims and litigation and all damages, cost and expenses associated with such use;
- ② Not impose any responsibility for any fault or negligence which may be cited in any such claim or litigation on SANYO ELECTRIC CO., LTD., its affiliates, subsidiaries and distributors or any of their officers and employees jointly or severally.

■ Information (including circuit diagrams and circuit parameters) herein is for example only; it is not guaranteed for volume production. SANYO believes information herein is accurate and reliable, but no guarantees are made or implied regarding its use or any infringements of intellectual property rights or other rights of third parties.