

### Features

- Low ON resistance.
- Very high-speed switching.
- Low-voltage drive.
- Micaless package facilitating mounting.

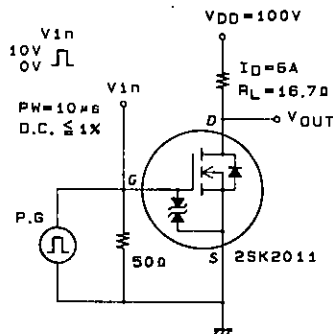
### Absolute Maximum Ratings at $T_a = 25^\circ\text{C}$

|                             |           |   | unit             |
|-----------------------------|-----------|---|------------------|
| Drain-to-Source Voltage     | $V_{DS}$  | 250   | V                |
| Gate-to-Source Voltage      | $V_{GS}$  | $\pm 30$  | V                |
| Drain Current(DC)           | $I_D$     | 12  | A                |
| Drain Current(Pulse)        | $I_{DP}$  | $PW \leq 10\mu\text{s}, \text{duty cycle} \leq 1\%$ | 48 A             |
| Allowable Power Dissipation | $P_D$     | 2.0   | W                |
|                             |           | $T_c = 25^\circ\text{C}$                            | 30 W             |
| Channel Temperature         | $T_{ch}$  | 150   | $^\circ\text{C}$ |
| Storage Temperature         | $T_{stg}$ | -55 to +150   | $^\circ\text{C}$ |

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

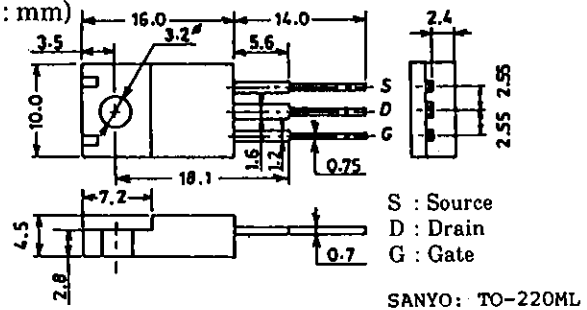
|  |               |   | min      | typ  | max      | unit          |
|--|---------------|---|----------|------|----------|---------------|
| D-S Breakdown Voltage                      | $V_{(BR)DSS}$ | $I_D = 1\text{mA}, V_{GS} = 0$          | 250      |      |          | V             |
| G-S Breakdown Voltage                      | $V_{(BR)GSS}$ | $I_G = \pm 100\mu\text{A}, V_{DS} = 0$  | $\pm 30$ |      |          | V             |
| Zero Gate Voltage Drain Current            | $I_{DSS}$     | $V_{DS} = 250\text{V}, V_{GS} = 0$      |          |      | 100      | $\mu\text{A}$ |
| Gate to Source Leakage Current             | $I_{GSS}$     | $V_{GS} = \pm 25\text{V}, V_{DS} = 0$   |          |      | $\pm 10$ | $\mu\text{A}$ |
| Cutoff Voltage                             | $V_{GS(off)}$ | $V_{DS} = 10\text{V}, I_D = 1\text{mA}$ | 1.5      |      | 2.5      | V             |
| Forward Transfer Admittance                | $ Y_{fs} $    | $V_{DS} = 10\text{V}, I_D = 6\text{A}$  | 5        | 8    |          | S             |
| Static Drain-to-Source on State Resistance | $R_{DS(on)}$  | $I_D = 6\text{A}, V_{GS} = 10\text{V}$  |          | 0.25 | 0.35     | $\Omega$      |
| Input Capacitance                          | $C_{iss}$     | $V_{DS} = 20\text{V}, f = 1\text{MHz}$  |          | 1250 |          | pF            |
| Output Capacitance                         | $C_{oss}$     | $V_{DS} = 20\text{V}, f = 1\text{MHz}$  |          | 215  |          | pF            |
| Reverse Transfer Capacitance               | $C_{rss}$     | $V_{DS} = 20\text{V}, f = 1\text{MHz}$  |          | 85   |          | pF            |
| Turn-ON Delay Time                         | $t_{d(on)}$   | See specified Test Circuit.             |          | 20   |          | ns            |
| Rise Time                                  | $t_r$         | "                                       |          | 30   |          | ns            |
| Turn-OFF Delay Time                        | $t_{d(off)}$  | "                                       |          | 125  |          | ns            |
| Fall Time                                  | $t_f$         | "                                       |          | 110  |          | ns            |
| Diode Forward Voltage                      | $V_{SD}$      | $I_S = 12\text{A}, V_{GS} = 0$          |          | 1.0  | 1.5      | V             |

### Switching Time Test Circuit



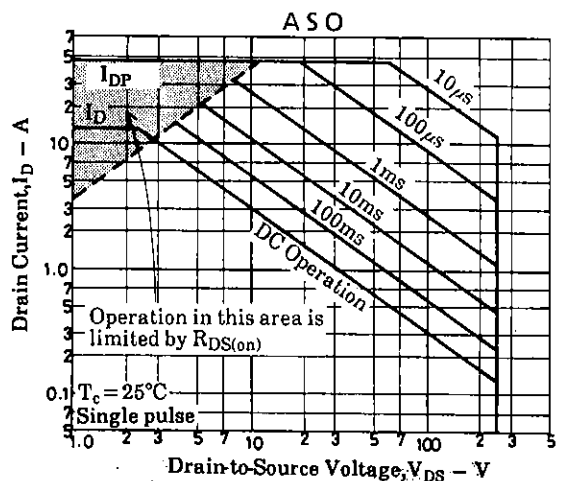
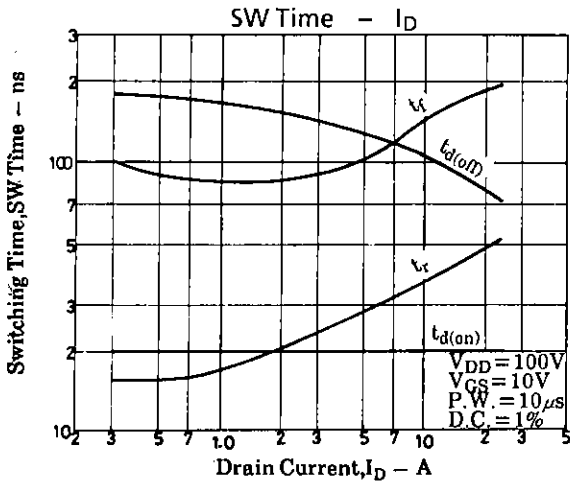
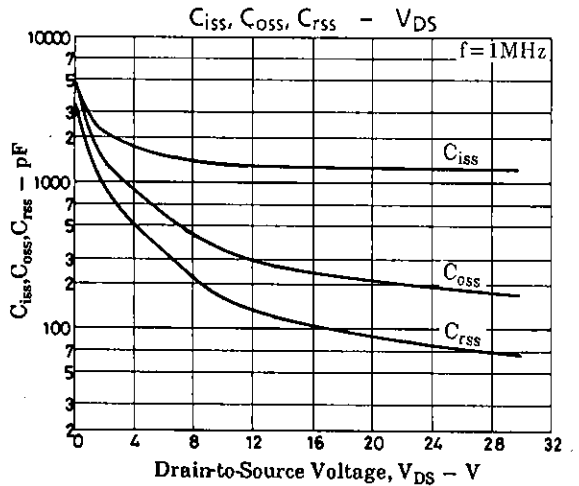
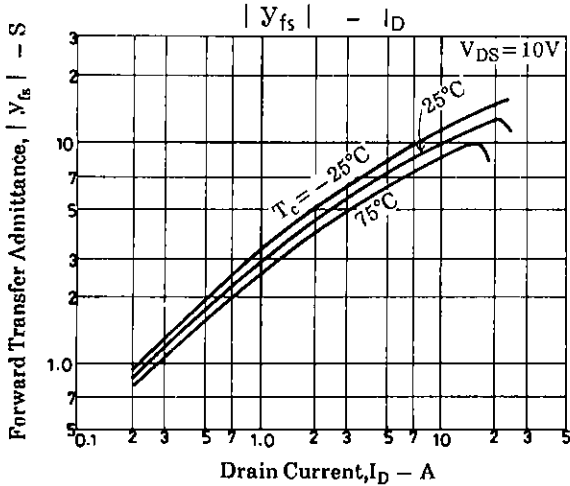
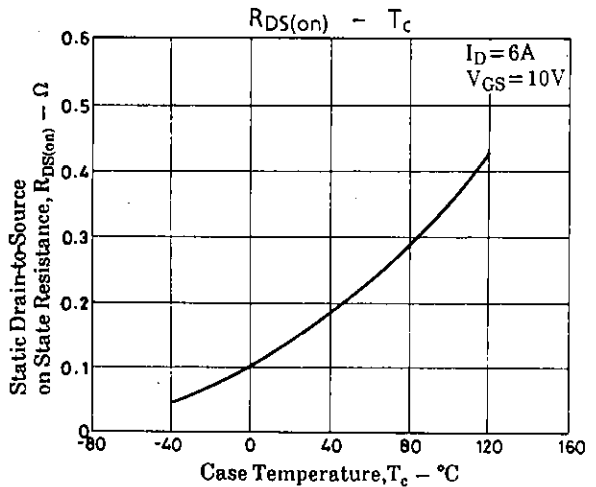
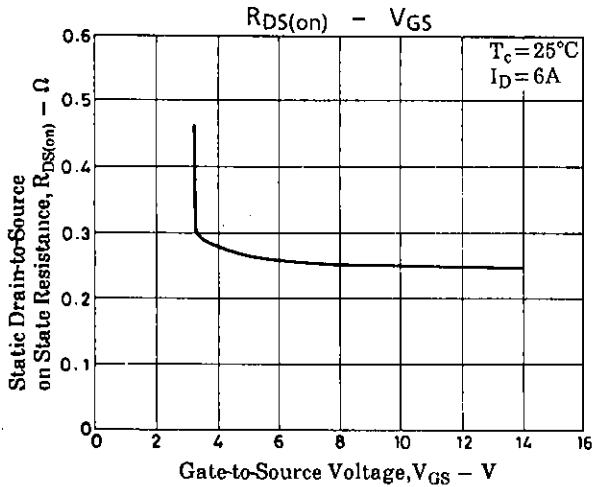
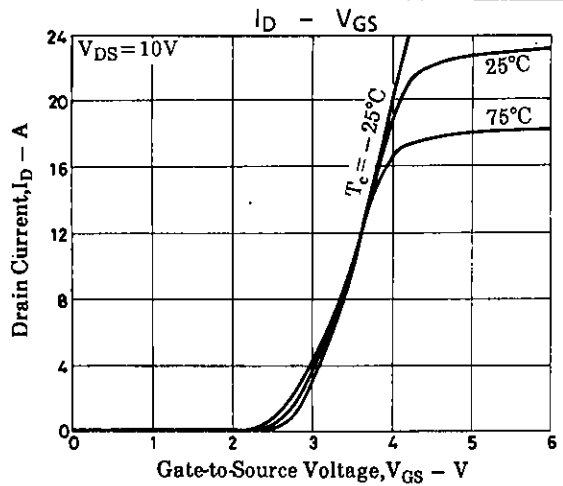
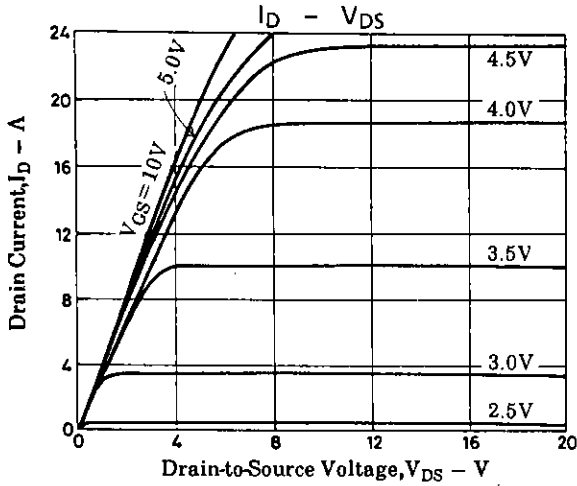
### Package Dimensions 2063

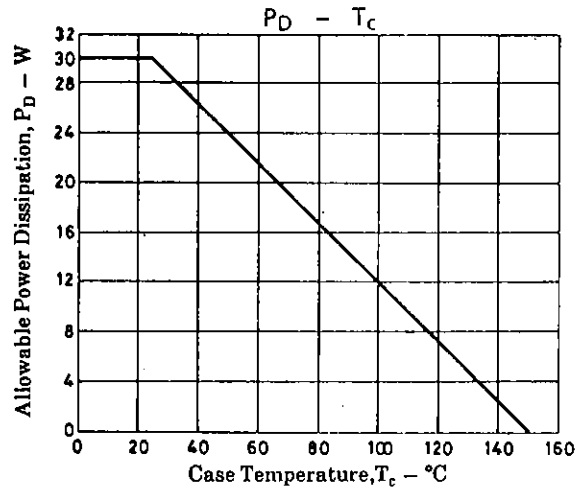
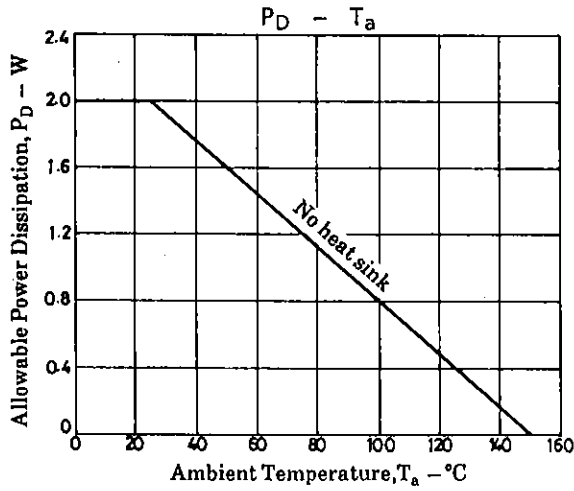
(unit: mm)



**SANYO Electric Co., Ltd. Semiconductor Business Headquarters**

TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110 JAPAN





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