

**SANYO**

No.4749

**2SJ276**P-Channel MOS Silicon FET  
Very High-Speed  
Switching Applications**Features**

- Low ON resistance.
- Very high-speed switching.
- Low-voltage drive.
- Surface mount type device making the following possible.
  - Reduction in the assembling time for 2SJ276-applied equipment.
  - High-density surface mount applications.
  - Small size of 2SJ276-applied equipment.

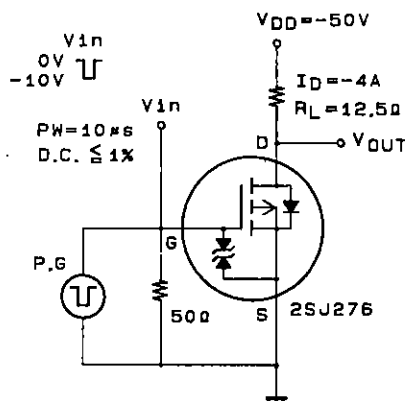
**Absolute Maximum Ratings at  $T_a = 25^\circ\text{C}$** 

| Absolute Maximum Ratings at Ta=25°C |                  |                        |             | unit |
|-------------------------------------|------------------|------------------------|-------------|------|
| Drain-to-Source Voltage             | V <sub>DSS</sub> |                        | -100        | V    |
| Gate-to-Source Voltage              | V <sub>GSS</sub> |                        | ±20         | V    |
| Drain Current (DC)                  | I <sub>D</sub>   |                        | -8          | A    |
| Drain Current (Pulse)               | I <sub>DP</sub>  | PW≤10μs, duty cycle≤1% | -32         | A    |
| Allowable Power Dissipation         | P <sub>D</sub>   |                        | 1.65        | W    |
|                                     |                  | Tc=25°C                | 60          | W    |
| Channel Temperature                 | T <sub>ch</sub>  |                        | 150         | °C   |
| Storage Temperature                 | T <sub>stg</sub> |                        | -55 to +150 | °C   |

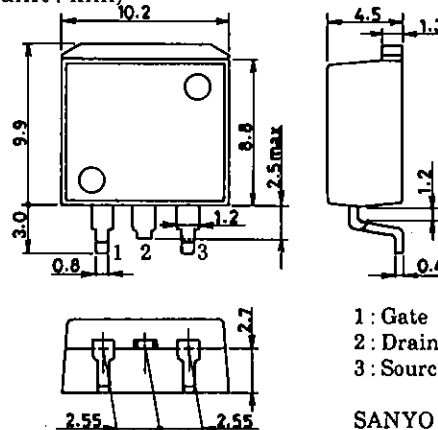
**Electrical Characteristics at  $T_a = 25^\circ\text{C}$** 

|                                |               |                                           | min      | typ  | max      | unit     |
|--------------------------------|---------------|-------------------------------------------|----------|------|----------|----------|
| D-S Breakdown Voltage          | $V_{(BR)DSS}$ | $I_D = -1\text{mA}, V_{GS} = 0$           | -100     |      |          | V        |
| G-S Breakdown Voltage          | $V_{(BR)GSS}$ | $I_G = \pm 100\mu A, V_{DS} = 0$          | $\pm 20$ |      |          | V        |
| Zero-Gate Voltage              | $I_{DSS}$     | $V_{DS} = -100\text{V}, V_{GS} = 0$       |          |      | -100     | $\mu A$  |
| Drain Current                  |               |                                           |          |      |          |          |
| Gate-to-Source Leakage Current | $I_{GSS}$     | $V_{GS} = \pm 16\text{V}, V_{DS} = 0$     |          |      | $\pm 10$ | $\mu A$  |
| Gate-to-Source Cutoff Voltage  | $V_{GS(off)}$ | $V_{DS} = -10\text{V}, I_D = -1\text{mA}$ | -1.0     |      | -2.0     | V        |
| Forward Transfer Admittance    | $ Y_{fs} $    | $V_{DS} = -10\text{V}, I_D = -4\text{A}$  | 3.5      | 6.5  |          | S        |
| Static Drain-to-Source         | $R_{DS(on)}$  | $I_D = -4\text{A}, V_{GS} = -10\text{V}$  |          | 0.22 | 0.3      | $\Omega$ |
| ON-State Resistance            | $R_{DS(on)}$  | $I_D = -4\text{A}, V_{GS} = -4\text{V}$   |          | 0.3  | 0.4      | $\Omega$ |

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**Switching Time Test Circuit****Package Dimensions 2090A**

(unit: mm)

1: Gate  
2: Drain  
3: Source

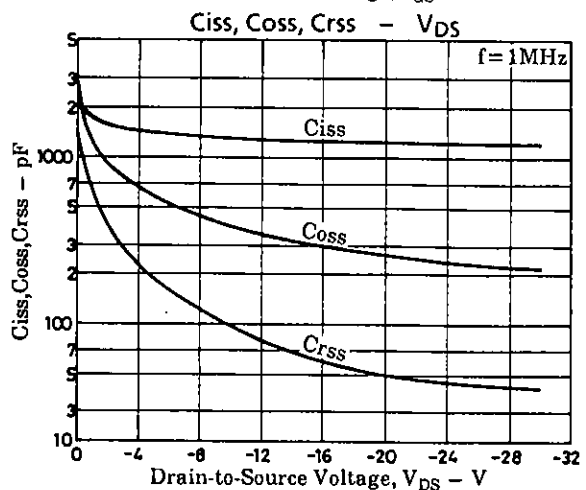
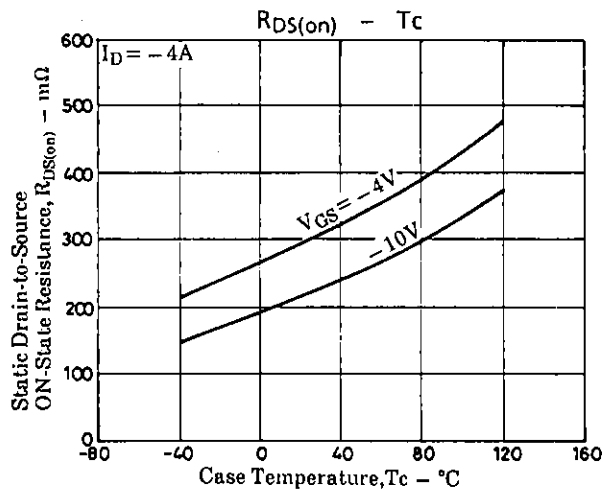
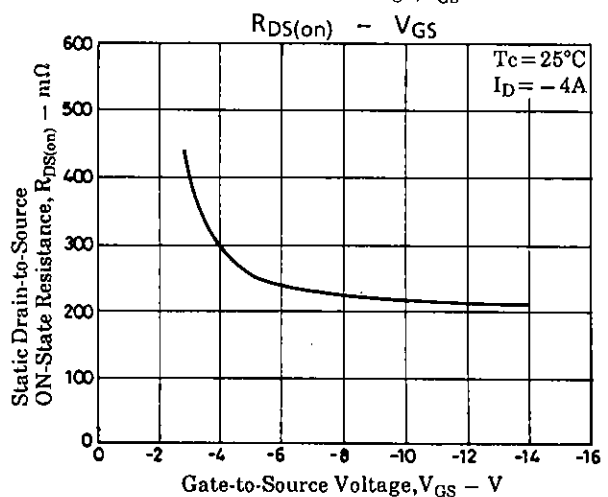
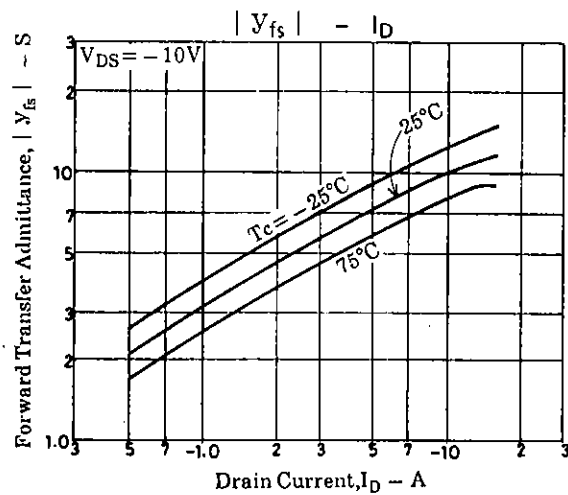
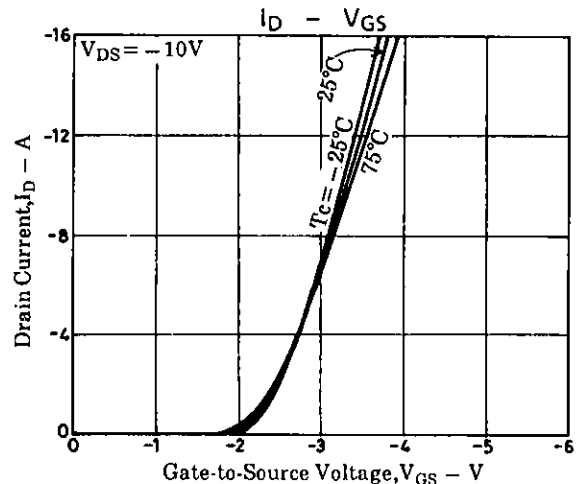
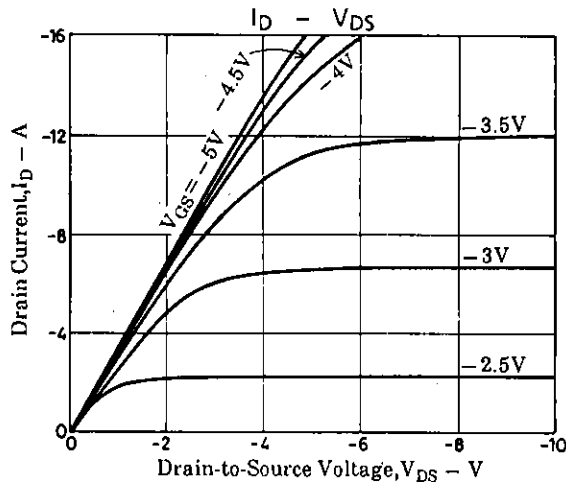
SANYO: SMP-FD

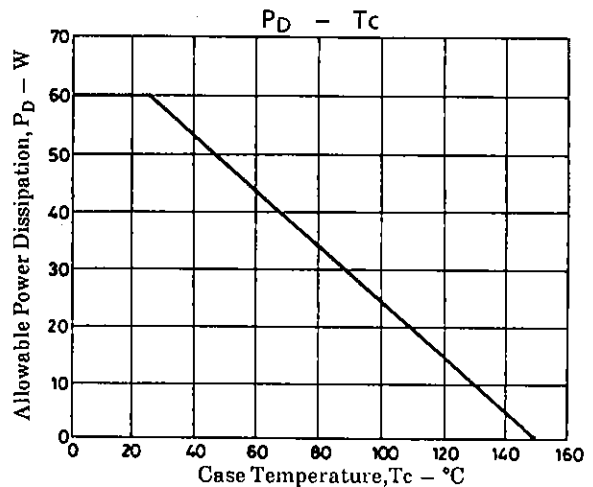
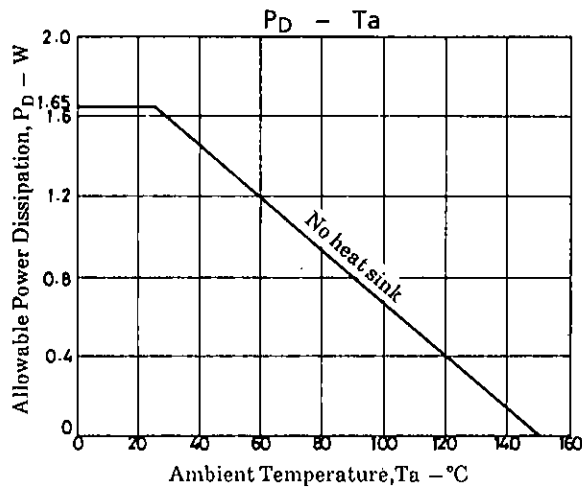
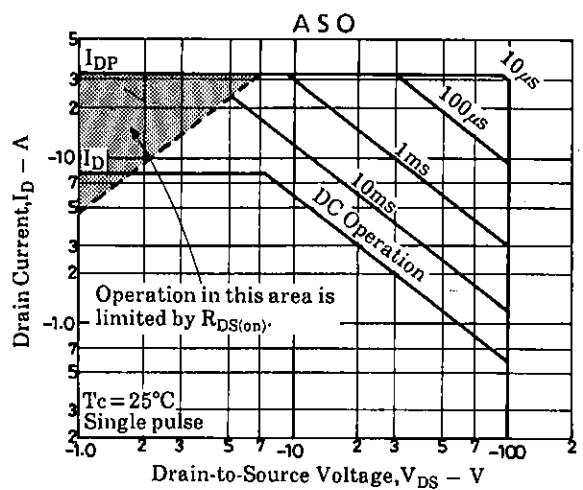
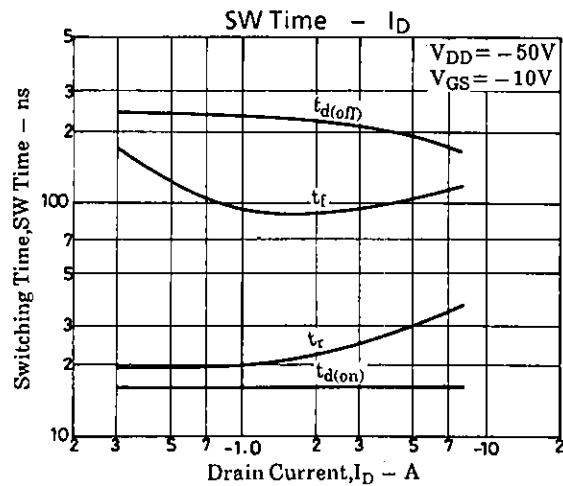
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11195TS (KOTO) BX-1179 No.4749-1/3

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|                              |              |                             | min  | typ  | max | unit |
|------------------------------|--------------|-----------------------------|------|------|-----|------|
| Input Capacitance            | $C_{iss}$    | $V_{DS} = -20V, f = 1MHz$   |      | 1230 |     | pF   |
| Output Capacitance           | $C_{oss}$    | $V_{DS} = -20V, f = 1MHz$   |      | 260  |     | pF   |
| Reverse Transfer Capacitance | $C_{rss}$    | $V_{DS} = -20V, f = 1MHz$   |      | 50   |     | pF   |
| Turn-ON Delay Time           | $t_{d(on)}$  | See specified Test Circuit. |      | 16   |     | ns   |
| Rise Time                    | $t_r$        | "                           |      | 27   |     | ns   |
| Turn-OFF Delay Time          | $t_{d(off)}$ | "                           |      | 200  |     | ns   |
| Fall Time                    | $t_f$        | "                           |      | 100  |     | ns   |
| Diode Forward Voltage        | $V_{SD}$     | $I_S = -8A, V_{GS} = 0$     | -1.0 | -1.5 |     | V    |





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