

<b>SANYO</b>	No.3826	<b>2SK1731</b>
		N-Channel MOS Silicon FET Very High-Speed Switching Applications

**Features**

- Low ON resistance.
- Very high-speed switching.
- Low-voltage drive.
- Its height onboard is 9.5mm.
- Meets radial taping.

**Absolute Maximum Ratings at Ta = 25°C**

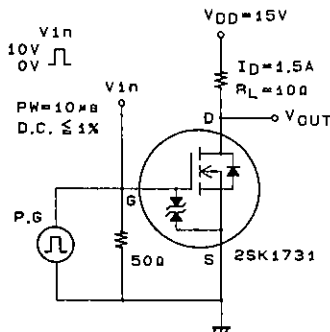
			unit
Drain to Source Voltage	V <sub>DSS</sub>	30	V
Gate to Source Voltage	V <sub>GSS</sub>	±15	V
Drain Current(DC)	I <sub>D</sub>	3	A
Drain Current(Pulse)	I <sub>DP</sub>	12	A
Allowable Power Dissipation	P <sub>D</sub>	1.5	W
Channel Temperature	T <sub>ch</sub>	150	°C
Storage Temperature	T <sub>stg</sub>	-55 to +150	°C

PW ≤ 10μs, duty cycle ≤ 1%

**Electrical Characteristics at Ta = 25°C**

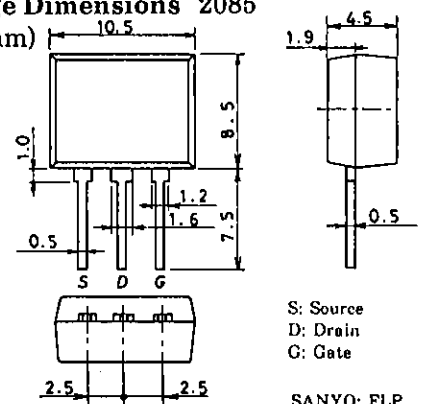
			min	typ	max	unit
D-S Breakdown Voltage	V <sub>(BR)DSS</sub>	I <sub>D</sub> = 1mA, V <sub>GS</sub> = 0	30			V
G-S Breakdown Voltage	V <sub>(BR)GSS</sub>	I <sub>G</sub> = ±100μA, V <sub>DS</sub> = 0	±15			V
Zero Gate Voltage Drain Current	I <sub>DSS</sub>	V <sub>DS</sub> = 30V, V <sub>GS</sub> = 0			100	μA
Gate to Source Leakage Current	I <sub>GSS</sub>	V <sub>GS</sub> = ±12V, V <sub>DS</sub> = 0			±10	μA
Cutoff Voltage	V <sub>GS(off)</sub>	V <sub>DS</sub> = 10V, I <sub>D</sub> = 1mA	1.0		2.0	V
Forward Transfer Admittance	Y <sub>fs</sub>	V <sub>DS</sub> = 10V, I <sub>D</sub> = 1.5A	2	3.5		S
Static Drain to Source on State Resistance	R <sub>DS(on)</sub>	I <sub>D</sub> = 1.5A, V <sub>GS</sub> = 10V		0.1	0.14	Ω
	R <sub>DS(on)</sub>	I <sub>D</sub> = 1.5A, V <sub>GS</sub> = 4V		0.14	0.18	Ω
Input Capacitance	C <sub>iss</sub>	V <sub>DS</sub> = 10V, f = 1MHz		400		pF
Output Capacitance	C <sub>oss</sub>	V <sub>DS</sub> = 10V, f = 1MHz		250		pF
Reverse Transfer Capacitance	C <sub>rss</sub>	V <sub>DS</sub> = 10V, f = 1MHz		90		pF
Turn-ON Delay Time	t <sub>d(on)</sub>	See specified Test Circuit.		10		ns
Rise Time	t <sub>r</sub>	"		18		ns
Turn-OFF Delay Time	t <sub>d(off)</sub>	"		95		ns
Fall Time	t <sub>f</sub>	"		60		ns
Diode Forward Voltage	V <sub>SD</sub>	I <sub>S</sub> = 3A, V <sub>GS</sub> = 0	1.0	1.5		V

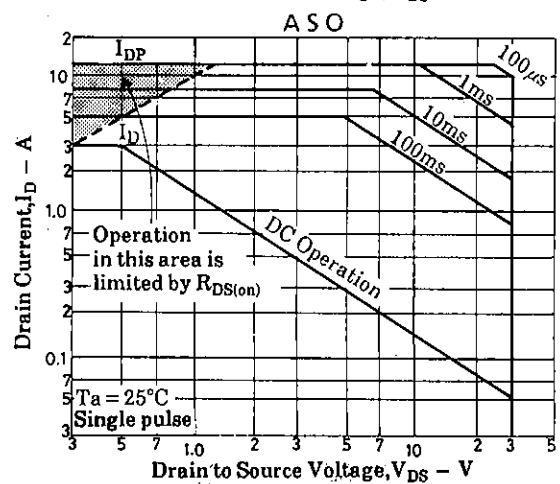
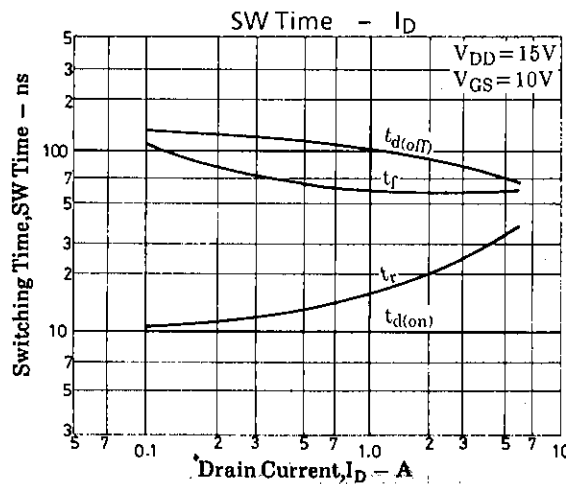
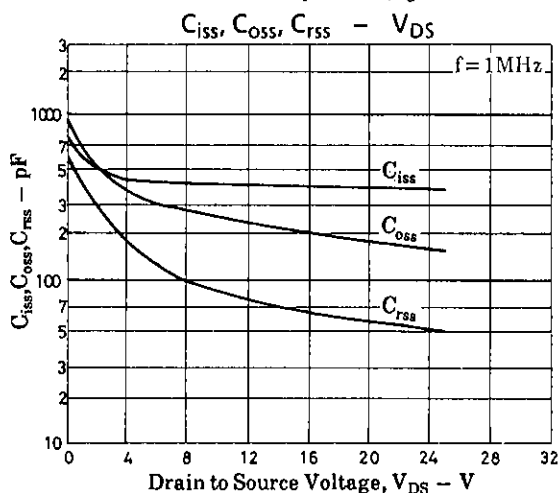
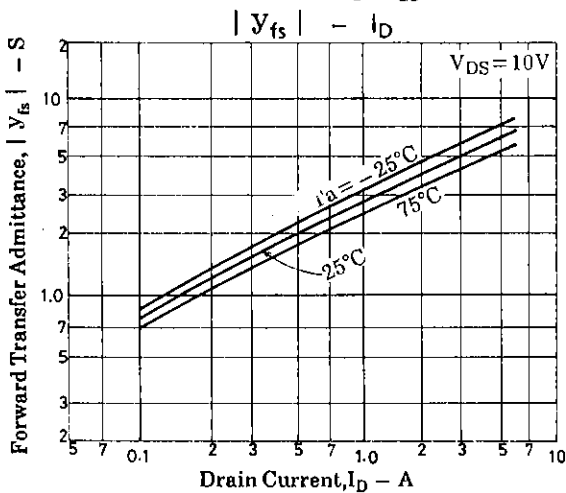
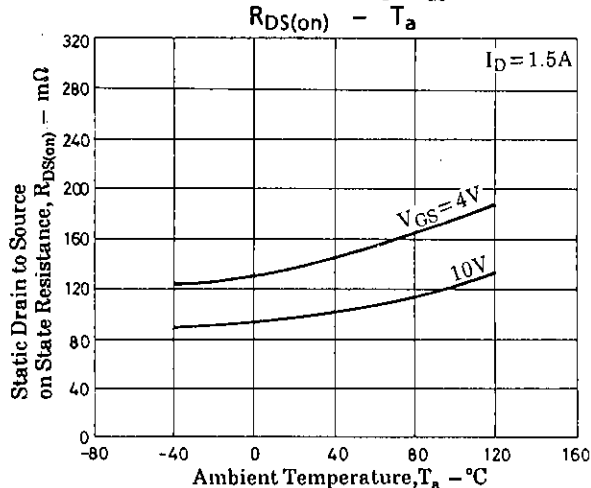
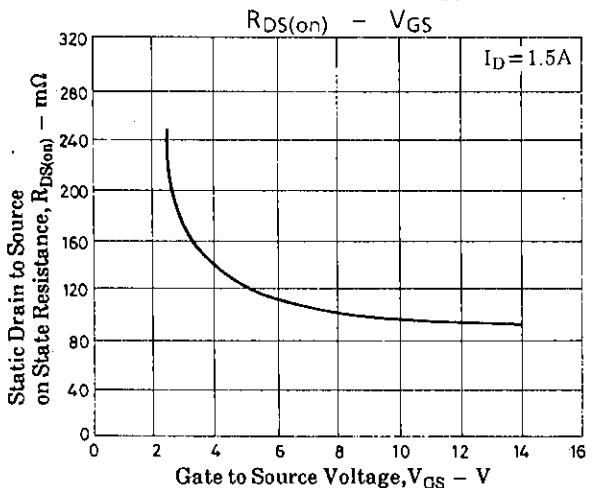
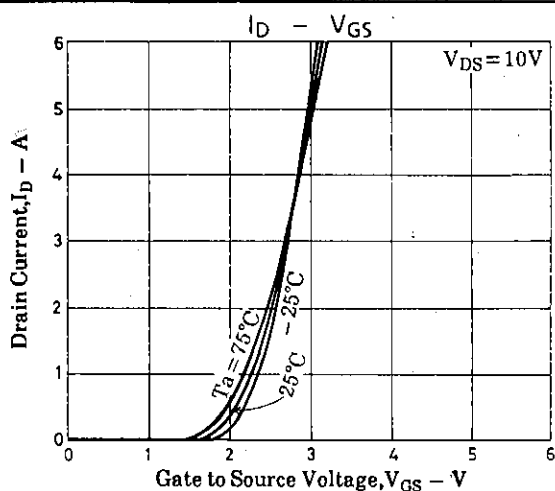
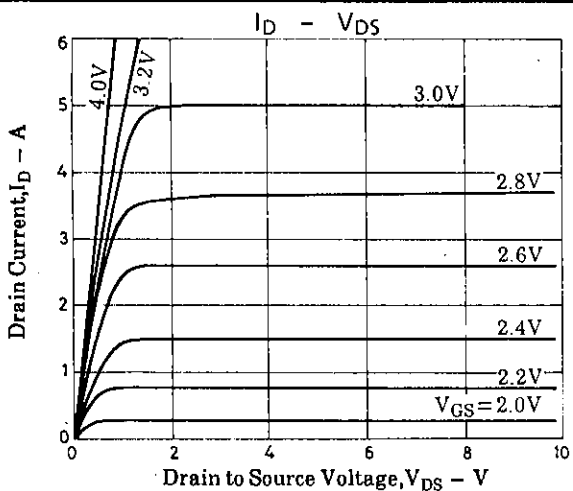
**Switching Time Test Circuit**

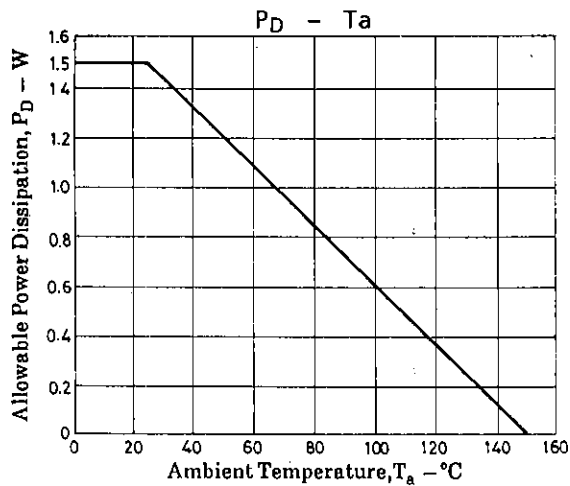


**Package Dimensions 2085**

(unit: mm)







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