

SANYO

No.3830

2SK1735

N-Channel MOS Silicon FET

Very High-Speed
Switching Applications**Features**

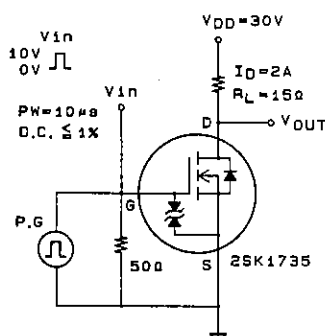
- Low ON resistance.
- Very high-speed switching.
- Low-voltage drive.
- Its height onboard is 9.5mm.
- Meets radial taping.

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

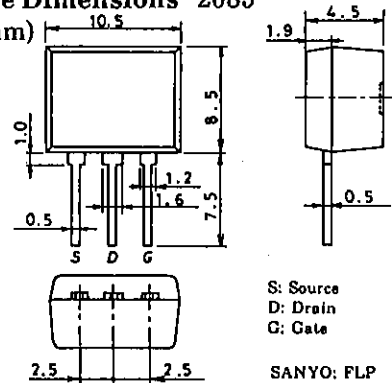
			unit
Drain to Source Voltage	V_{DS}	60	V
Gate to Source Voltage	V_{GS}	± 15	V
Drain Current(DC)	I_D	4	A
Drain Current(Pulse)	I_{DP}	$PW \leq 10\mu s$, duty cycle $\leq 1\%$	16 A
Allowable Power Dissipation	P_D	1.5	W
Channel Temperature	T_{ch}	150	$^\circ\text{C}$
Storage Temperature	T_{stg}	-55 to $+150$	$^\circ\text{C}$

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

			min	typ	max	unit
D-S Breakdown Voltage	$V_{(BR)DSS}$	$I_D = 1\text{mA}, V_{GS} = 0$	60			V
G-S Breakdown Voltage	$V_{(BR)GSS}$	$I_G = \pm 100\mu A, V_{DS} = 0$	± 15			V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS} = 60\text{V}, V_{GS} = 0$			100	μA
Gate to Source Leakage Current	I_{GSS}	$V_{GS} = \pm 12\text{V}, V_{DS} = 0$			± 10	μA
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} $	$V_{DS} = 10\text{V}, I_D = 2\text{A}$	3.5	5.5		S
Static Drain to Source on State Resistance	$R_{DS(on)}$	$I_D = 2\text{A}, V_{GS} = 10\text{V}$		70	90	$m\Omega$
	$R_{DS(on)}$	$I_D = 2\text{A}, V_{GS} = 4\text{V}$		90	120	$m\Omega$
Input Capacitance	C_{iss}	$V_{DS} = 20\text{V}, f = 1\text{MHz}$		950		pF
Output Capacitance	C_{oss}	$V_{DS} = 20\text{V}, f = 1\text{MHz}$		250		pF
Reverse Transfer Capacitance	C_{rss}	$V_{DS} = 20\text{V}, f = 1\text{MHz}$		50		pF
Turn-ON Delay Time	$t_{d(on)}$	See specified Test Circuit.		13		ns
Rise Time	t_r	"		25		ns
Turn-OFF Delay Time	$t_{d(off)}$	"		120		ns
Fall Time	t_f	"		90		ns
Diode Forward Voltage	V_{SD}	$I_S = 4\text{A}, V_{GS} = 0$	1.0	1.5		V

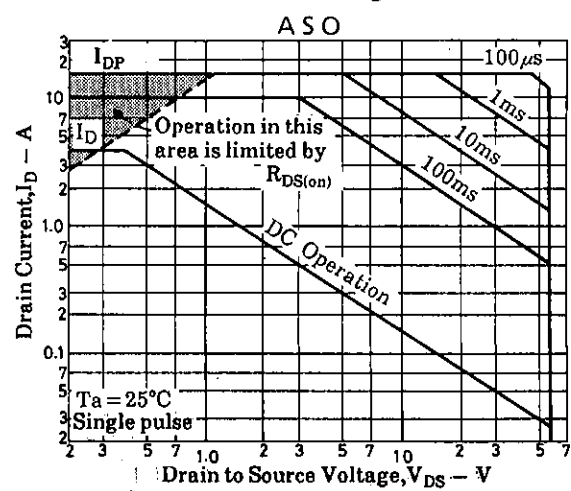
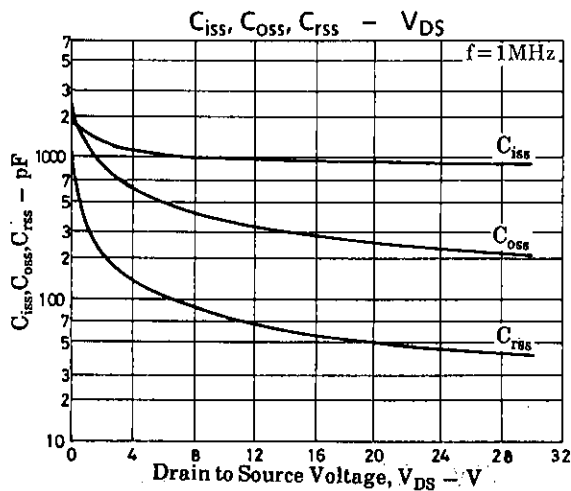
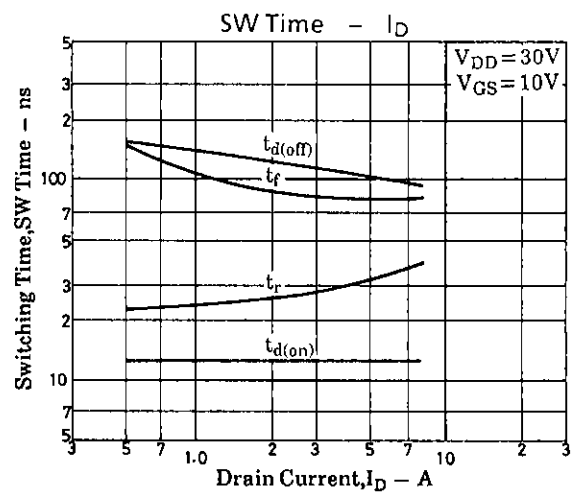
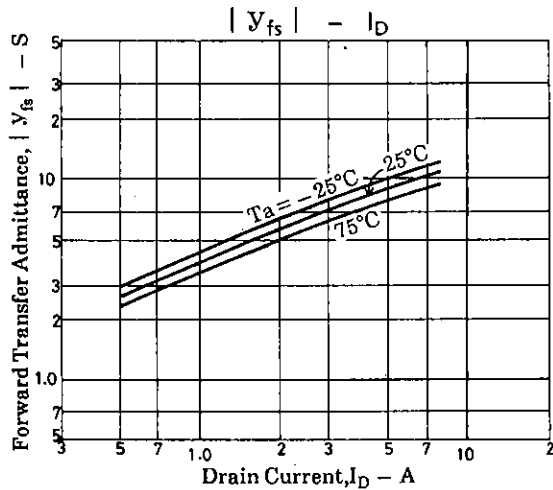
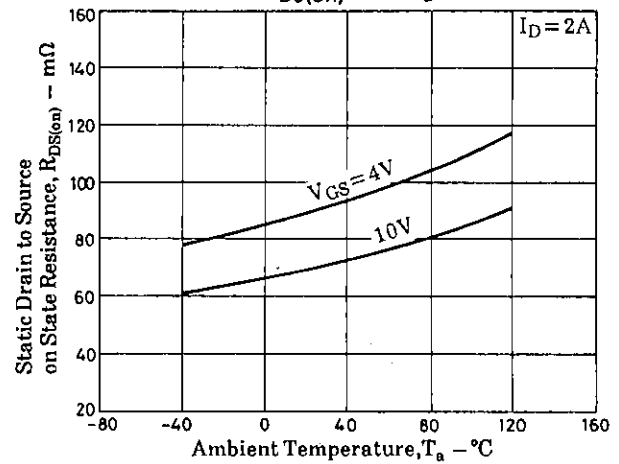
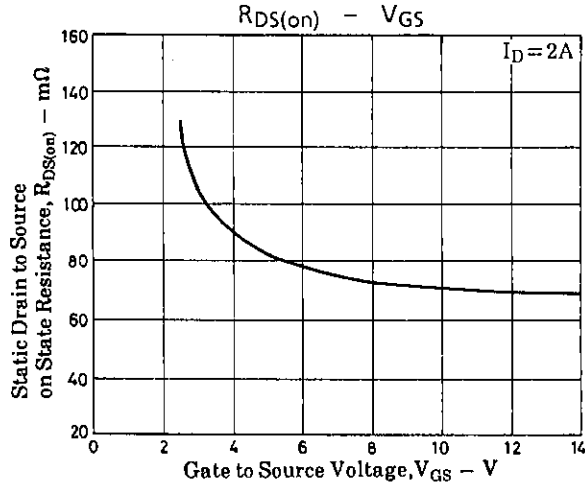
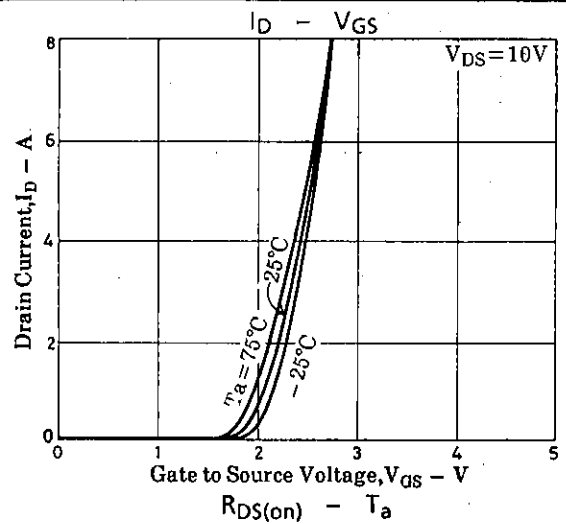
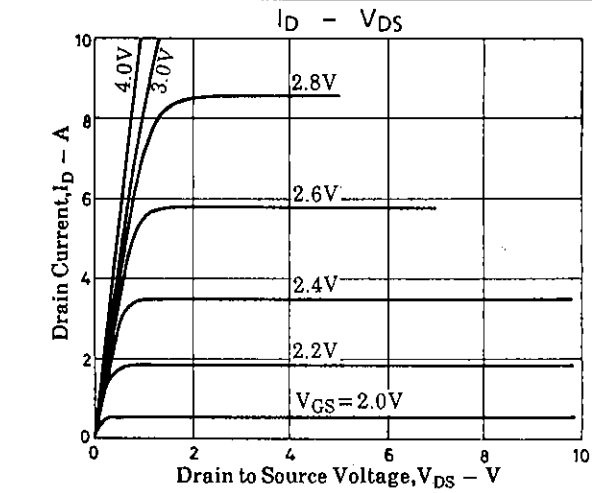
Switching Time Test Circuit**Package Dimensions 2085**

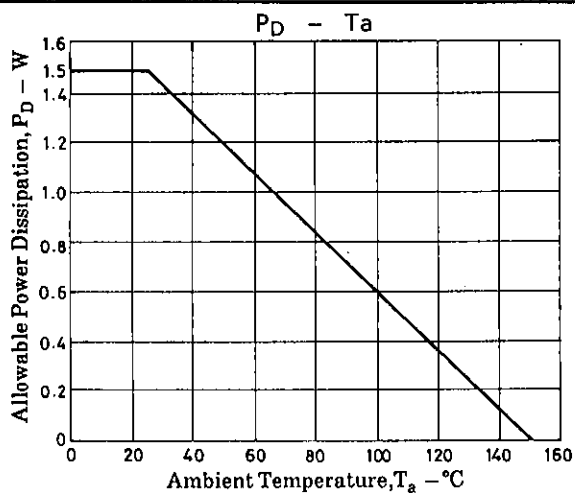
(unit: mm)

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

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

12693TH (KOTO) A8-7975 No.3830-1/3





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