

SANYO

No.3771A

2SK1470

N-Channel MOS Silicon FET

Very High-Speed
Switching Applications**Features**

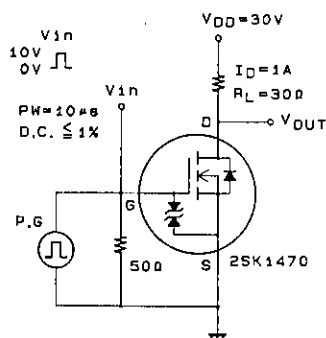
- Low ON resistance.
- Very high-speed switching.
- Low-voltage drive.

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

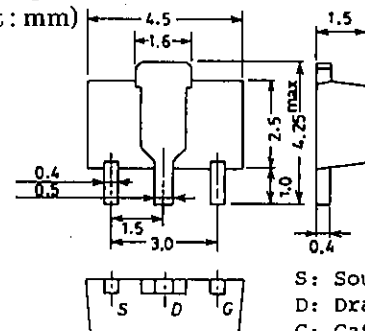
			unit
Drain to Source Voltage	V_{DS}	60	V
Gate to Source Voltage	V_{GS}	± 15	V
Drain Current(DC)	I_D	2	A
Drain Current(Pulse)	I_{DP}	8	A
Allowable Power Dissipation	P_D	$PW \leq 10\mu\text{s}$, duty cycle $\leq 1\%$	3.5
		$T_c = 25^\circ\text{C}$	W
Channel Temperature	T_{ch}	Mounted on ceramic board	1.5
		(250mm ² × 0.8mm)	W
Storage Temperature	T_{stg}		150
			-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
Zero Gate Voltage	I_{DSS}	$V_{DS} = 60\text{V}$, $V_{GS} = 0$			100	μA
Drain Current						
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} $	$V_{DS} = 10\text{V}$, $I_D = 1\text{A}$	1.2	2.0		S
Static Drain to Source	$R_{DS(on)}$	$I_D = 1\text{A}$, $V_{GS} = 10\text{V}$		0.35	0.45	Ω
on State Resistance	$R_{DS(on)}$	$I_D = 1\text{A}$, $V_{GS} = 4\text{V}$		0.45	0.6	Ω
Input Capacitance	C_{iss}	$V_{DS} = 20\text{V}$, $f = 1\text{MHz}$		150		pF
Output Capacitance	C_{oss}	$V_{DS} = 20\text{V}$, $f = 1\text{MHz}$		60		pF
Reverse Transfer Capacitance	C_{rss}	$V_{DS} = 20\text{V}$, $f = 1\text{MHz}$		12		pF
Turn-ON Delay Time	$t_{d(on)}$	See specified Test Circuit.		6		ns
Rise Time	t_r	"		10		ns
Turn-OFF Delay Time	$t_{d(off)}$	"		60		ns
Fall Time	t_f	"		20		ns
Diode Forward Voltage	V_{SD}	$I_S = 2\text{A}$, $V_{GS} = 0$		1.0		V

Switching Time Test Circuit**Package Dimensions 2062**

(unit : mm)



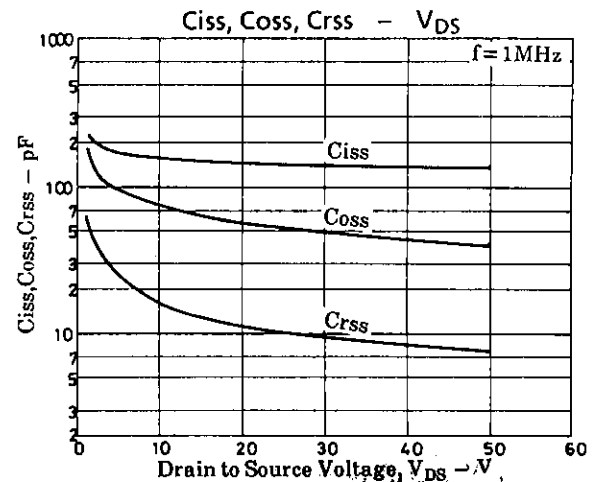
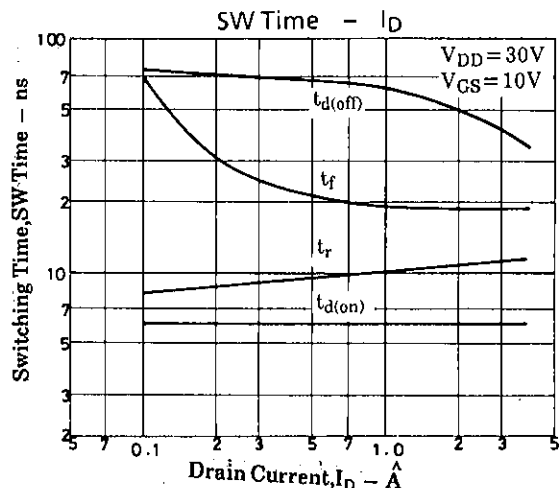
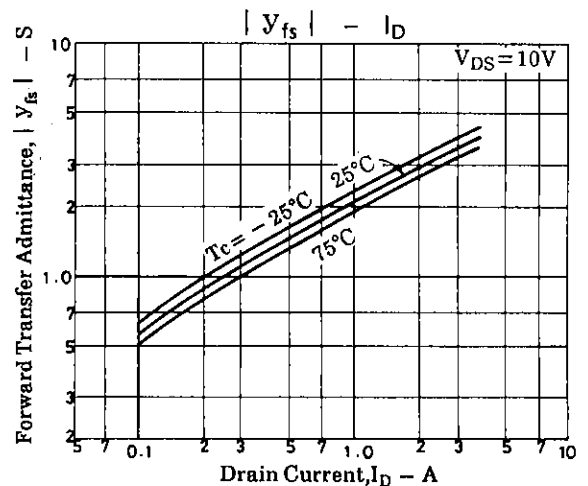
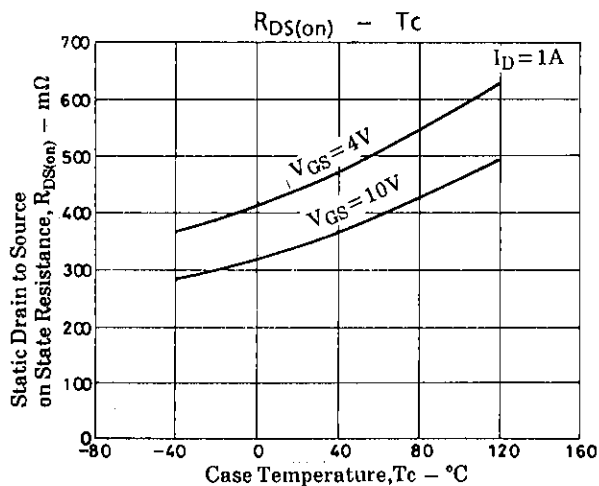
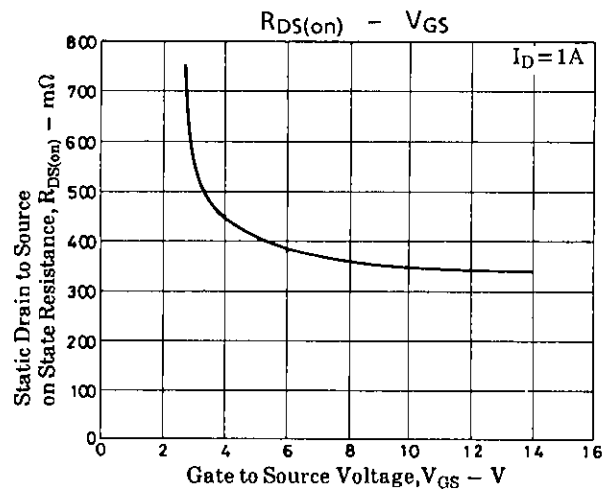
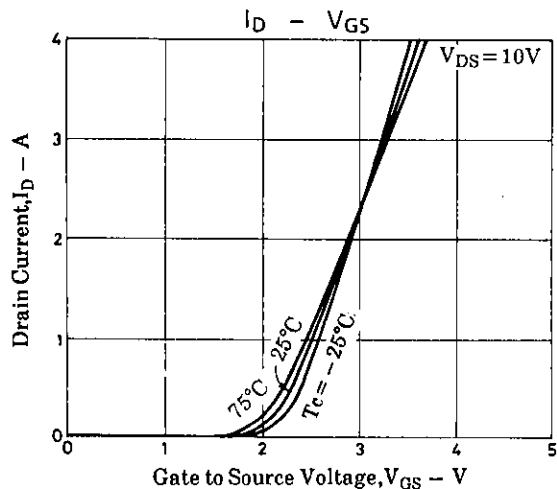
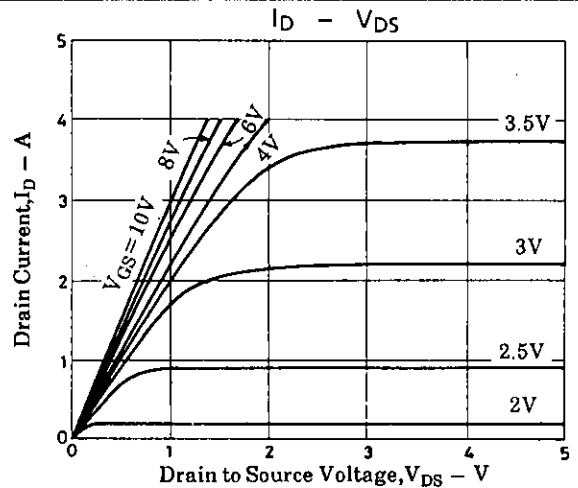
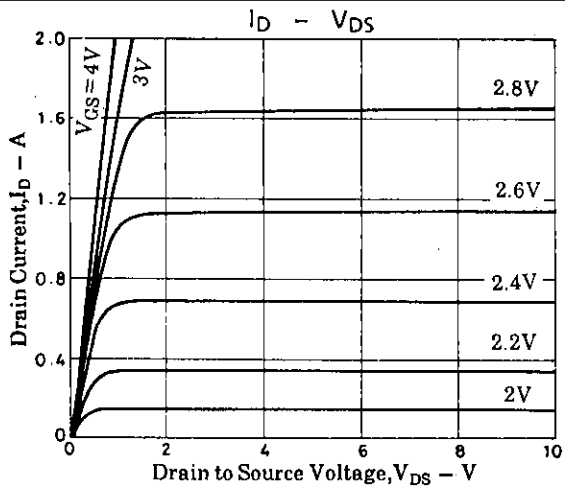
S: Source
D: Drain
G: Gate

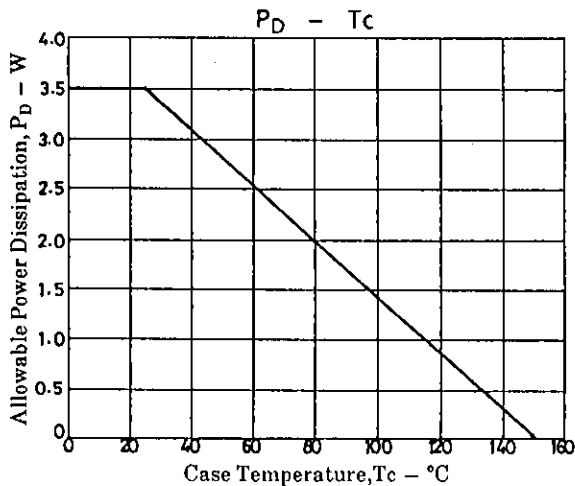
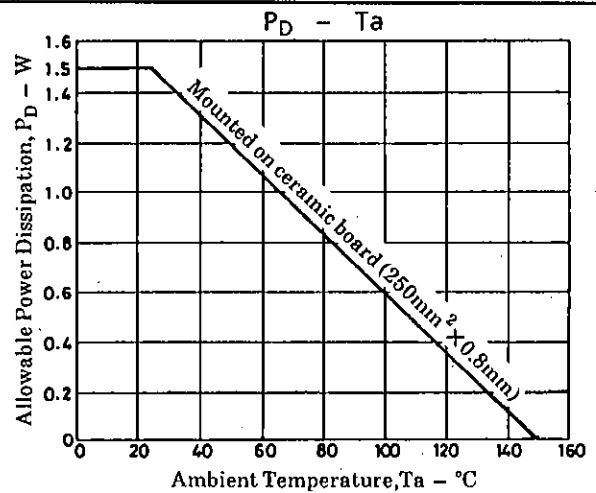
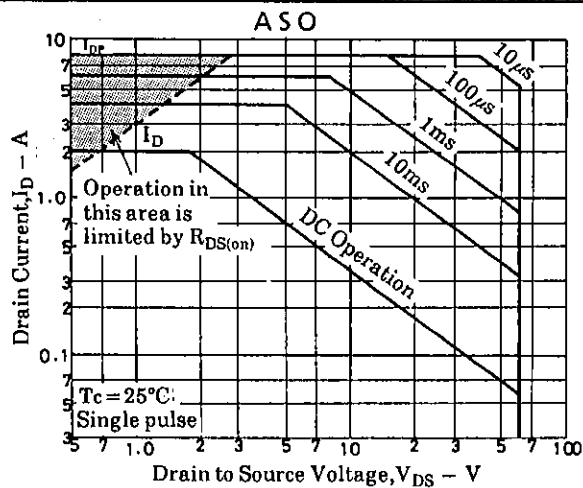
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