

SANYO	No.3819	2SK1724
		N-Channel MOS Silicon FET Very High-Speed Switching Applications

Features

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

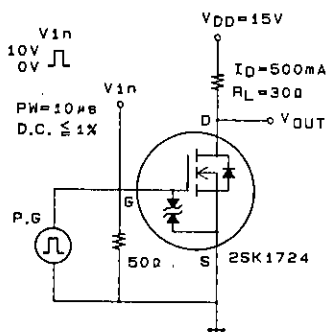
Absolute Maximum Ratings at Ta = 25°C

			unit
Drain to Source Voltage	V_{DS}	30	V
Gate to Source Voltage	V_{GS}	± 15	V
Drain Current(DC)	I_D	1	A
Drain Current(Pulse)	I_{DP}	4	A
Allowable Power Dissipation	P_D	$PW \leq 10\mu s, \text{ duty cycle} \leq 1\%$	3.5
		$T_c = 25^\circ C$	W
		Mounted on ceramic board (250mm ² × 0.8mm)	1.3
Channel Temperature	T_{ch}	150	°C
Storage Temperature	T_{stg}	-55 to +150	°C

Electrical Characteristics at Ta = 25°C

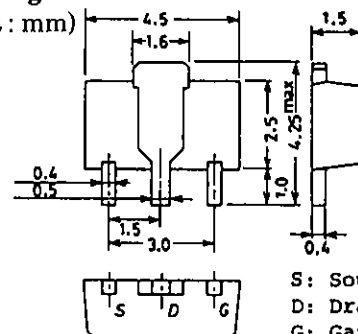
			min	typ	max	unit
D-S Breakdown Voltage	$V_{(BR)DSS}$	$I_D = 1mA, V_{GS} = 0$	30			V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS} = 30V, V_{GS} = 0$			10	μA
Gate to Source Leakage Current	I_{GSS}	$V_{GS} = \pm 12V, V_{DS} = 0$			± 10	μA
Cutoff Voltage	$V_{GS(off)}$	$V_{DS} = 10V, I_D = 1mA$	1.0		2.0	V
Forward Transfer Admittance	$ Y_{fs} $	$V_{DS} = 10V, I_D = 500mA$	0.6	1.0		S
Static Drain to Source on State Resistance	$R_{DS(on)}$	$I_D = 500mA, V_{GS} = 10V$		0.5	0.75	Ω
	$R_{DS(on)}$	$I_D = 500mA, V_{GS} = 4V$		0.75	1.1	Ω
Input Capacitance	C_{iss}	$V_{DS} = 10V, f = 1MHz$		50		pF
Output Capacitance	C_{oss}	$V_{DS} = 10V, f = 1MHz$		35		pF
Reverse Transfer Capacitance	C_{rss}	$V_{DS} = 10V, f = 1MHz$		10		pF
Turn-ON Delay Time	$t_{d(on)}$	See specified Test Circuit.		5		ns
Rise Time	t_r	"		10		ns
Turn-OFF Delay Time	$t_{d(off)}$	"		30		ns
Fall Time	t_f	"		20		ns
Diode Forward Voltage	V_{SD}	$I_S = 1A, V_{GS} = 0$		1.0		V

Switching Time Test Circuit



Package Dimensions 2062

(unit: mm)

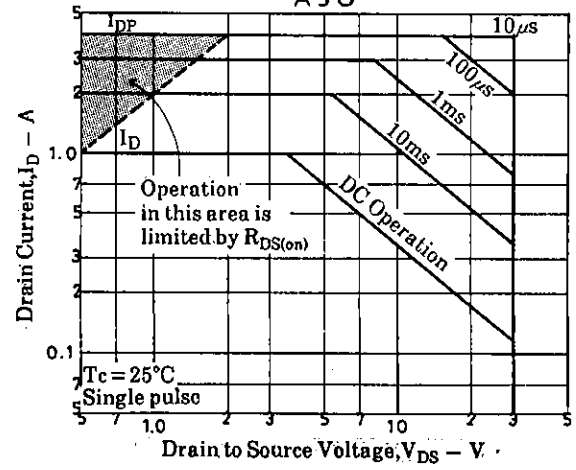
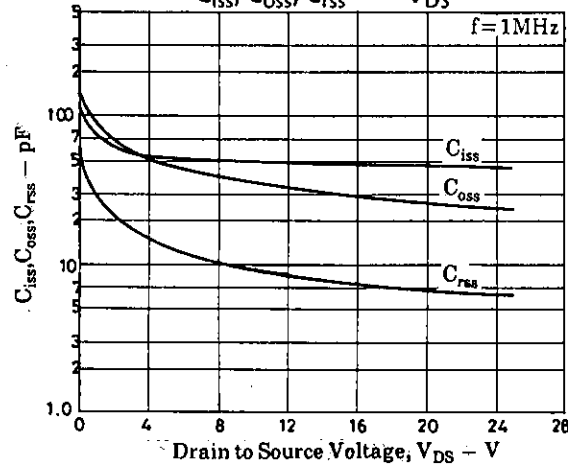
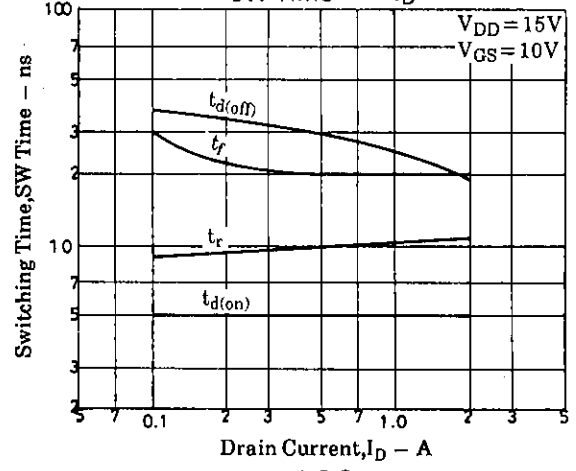
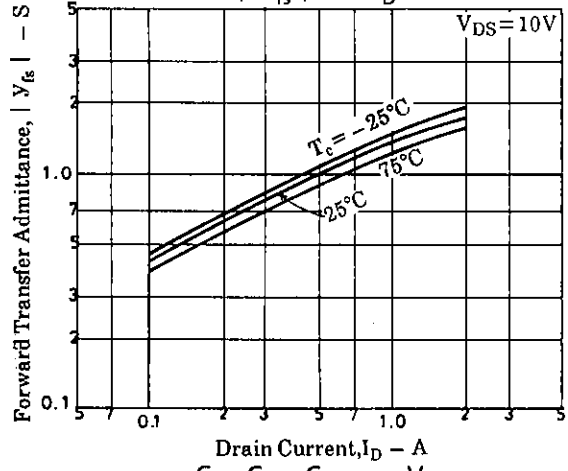
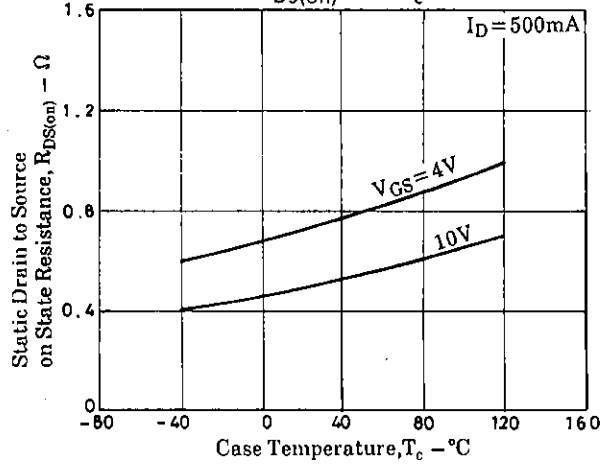
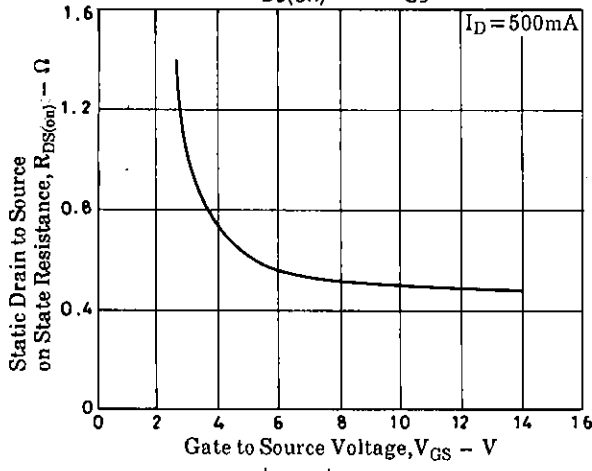
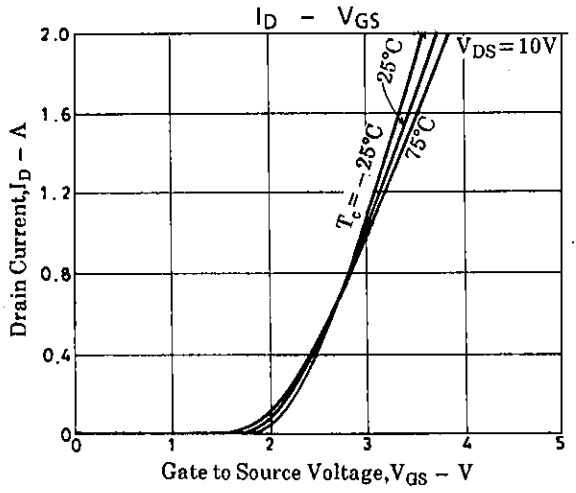
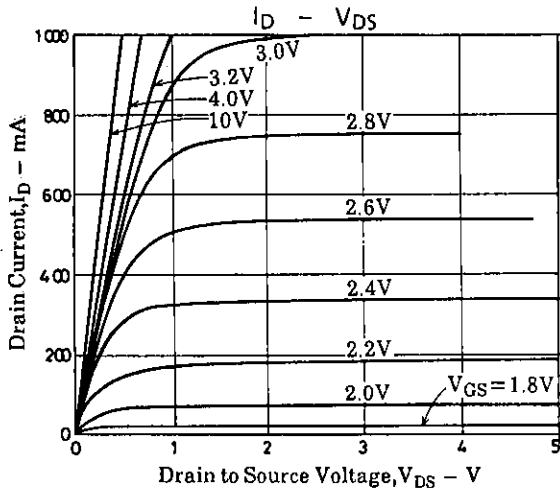


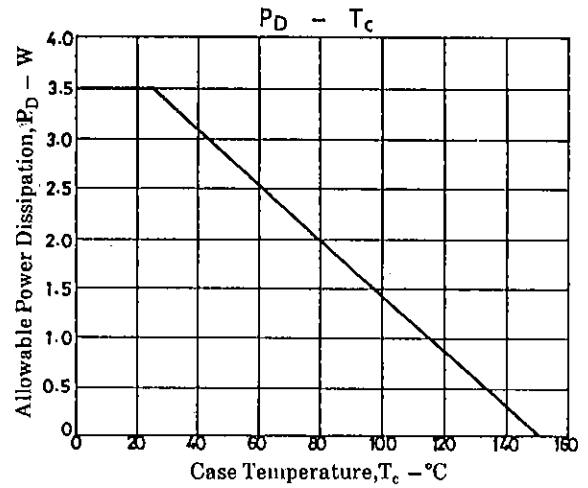
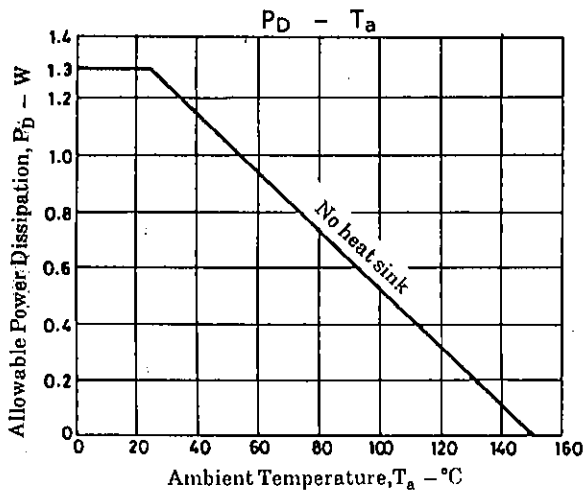
S: Source
D: Drain
G: Gate

SANYO: PCP

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