

SANYO	No.4314	2SK1925
		N-Channel MOS Silicon FET Very High-Speed Switching Applications

Features

- Low ON resistance.
- Very high-speed switching.
- High-speed diode (trr = 150ns).

Absolute Maximum Ratings at Ta = 25°C

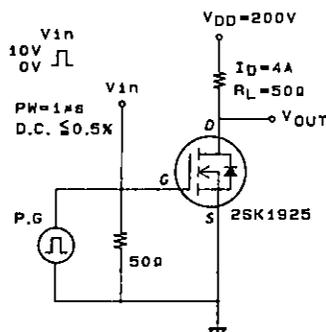
			unit
Drain-to-Source Voltage	V _{DSS}	600	V
Gate-to-Source Voltage	V _{GSS}	±30	V
Drain Current(DC)	I _D	8	A
Drain Current(Pulse)	I _{DP}	32	A
Allowable Power Dissipation	P _D	2.5	W
		120	W
Channel Temperature	T _{ch}	150	°C
Storage Temperature	T _{stg}	-55 to +150	°C

T_c = 25°C

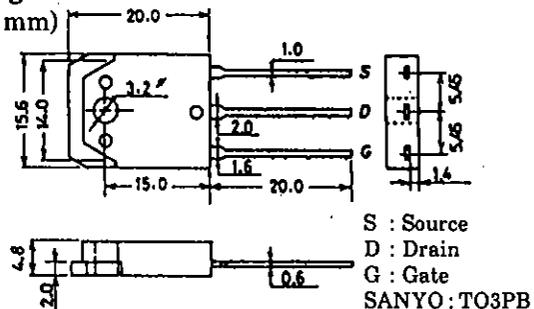
Electrical Characteristics at Ta = 25°C

			min	typ	max	unit
D-S Breakdown Voltage	V _{DSS}	I _D = 10mA, V _{GS} = 0	600			V
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} = 480V, V _{GS} = 0			1.0	mA
Gate-to-Source Leakage Current	I _{GSS}	V _{GS} = ±30V, V _{DS} = 0			±100	nA
Cutoff Voltage	V _{GS(off)}	V _{DS} = 10V, I _D = 1mA	2.0		3.0	V
Forward Transfer Admittance	y _{fs}	V _{DS} = 10V, I _D = 4A	2.8	5.5		S
Static Drain-to-Source on State Resistance	R _{DSON}	I _D = 4A, V _{GS} = 10V		0.9	1.2	Ω
Input Capacitance	C _{iss}	V _{DS} = 20V, f = 1MHz		1500		pF
Output Capacitance	C _{oss}	V _{DS} = 20V, f = 1MHz		190		pF
Reverse Transfer Capacitance	C _{rss}	V _{DS} = 20V, f = 1MHz		50		pF
Turn-ON Delay Time	t _{d(on)}	See specified Test Circuit.		20		ns
Rise Time	t _r	∞		35		ns
Turn-OFF Delay Time	t _{d(off)}	∞		350		ns
Fall Time	t _f	∞		100		ns
Diode Forward Voltage	V _{SD}	I _S = 8A, V _{GS} = 0			1.5	V
Diode Reverse Recovery Time	trr	I _S = 8A, di/dt = 100A/μs		150		ns

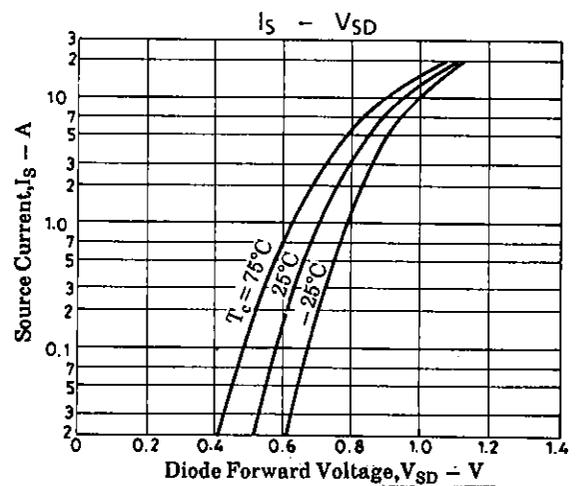
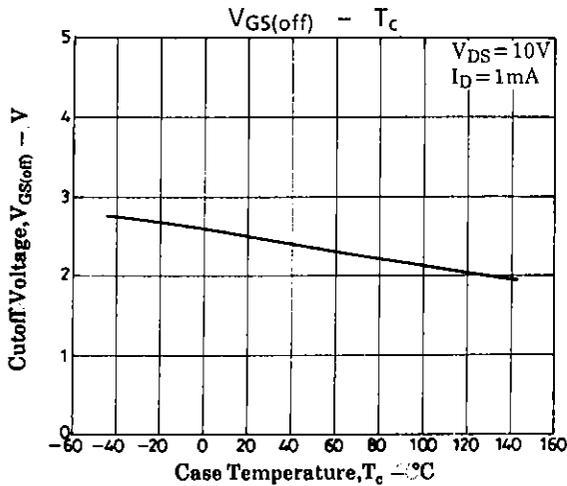
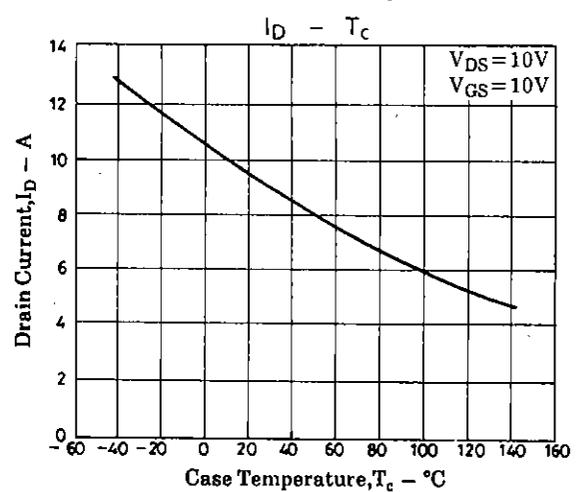
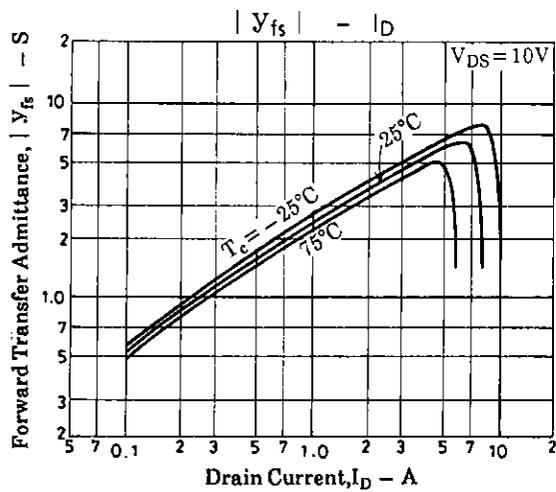
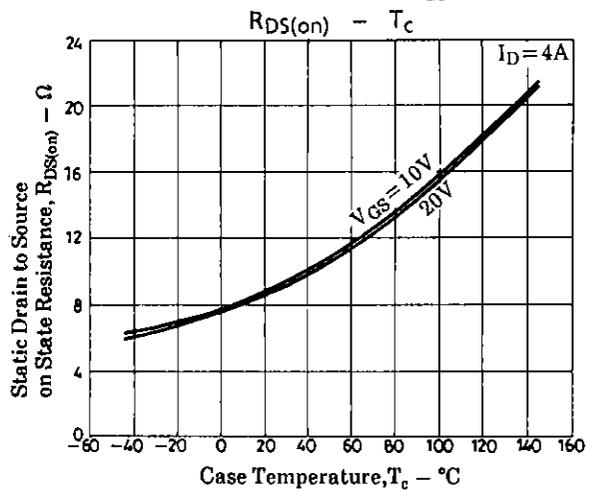
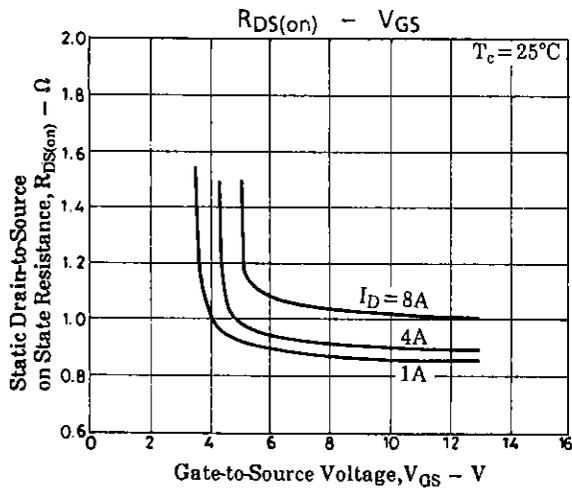
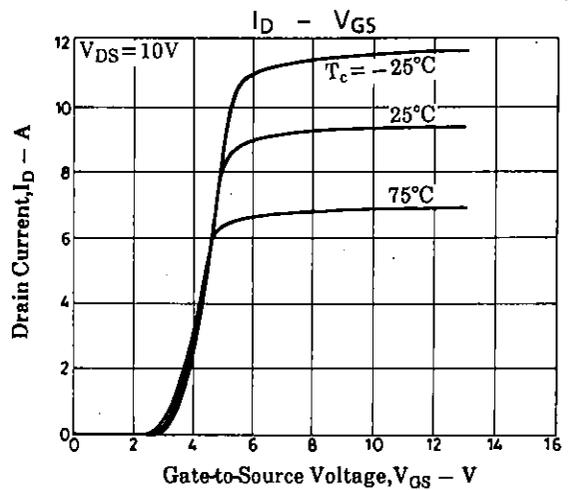
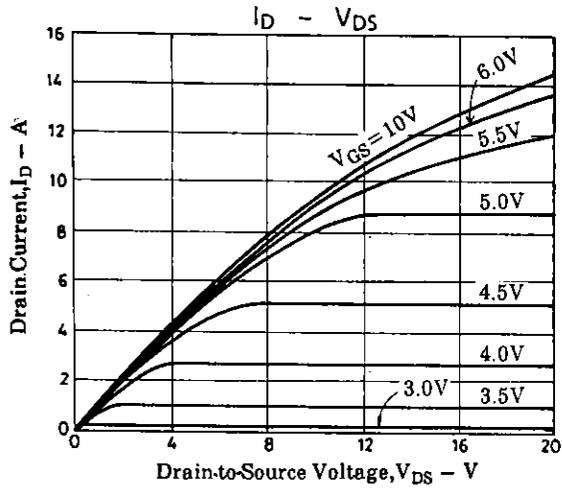
(Note) Be careful in handling the 2SK1925 because it has no protection diode between gate and source.

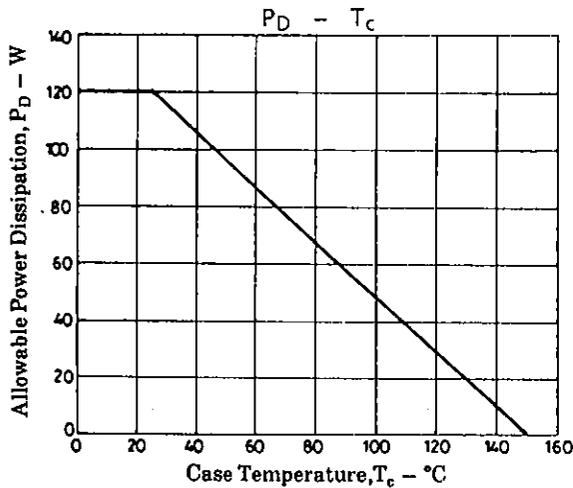
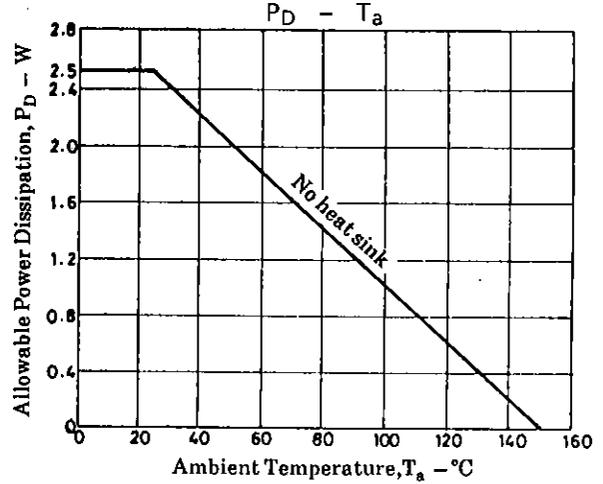
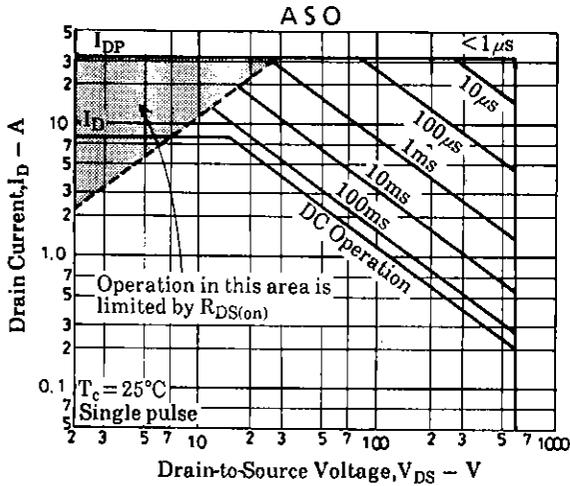
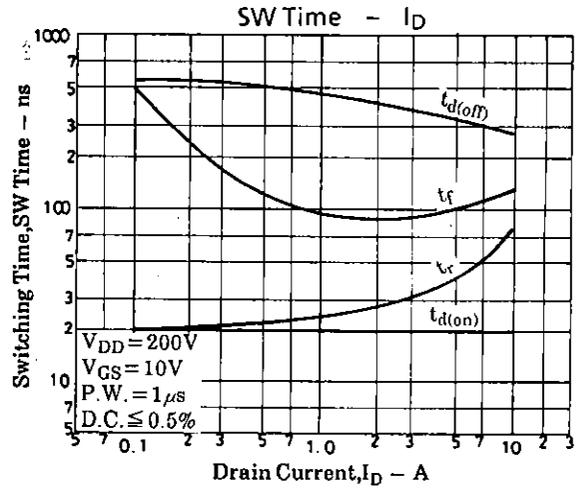
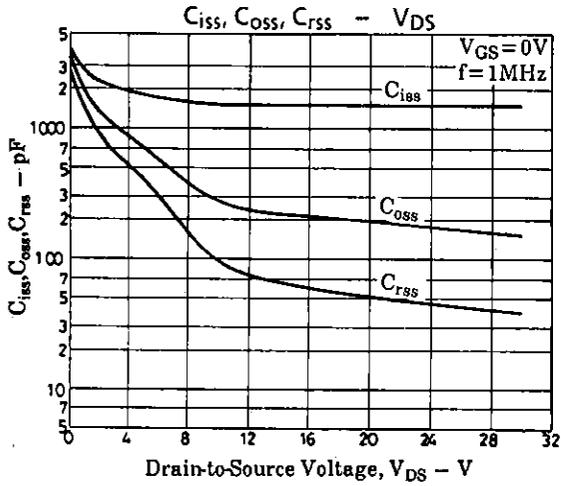
Switching Time Test Circuit**Package Dimensions 2056**

(unit : mm)



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