



No.4207

2SK1895

N-Channel MOS Silicon FET

Very High-Speed Switching Applications

Features

- Low ON resistance.
 - Very high-speed switching.
 - Low-voltage drive.
 - Micaless package facilitating mounting.

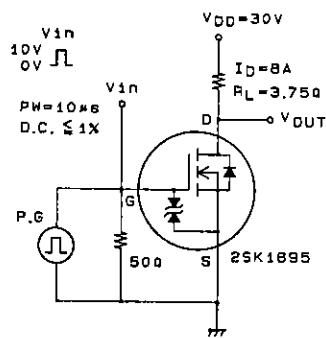
Absolute Maximum Ratings at $T_a = 25^\circ\text{C}$

Absolute Maximum Ratings at $T_A = 25^\circ C$		Unit
Drain to Source Voltage	V_{DSS}	60 V
Gate to Source Voltage	V_{GSS}	± 15 V
Drain Current(DC)	I_D	12 A
Drain Current(Pulse)	I_{DP}	PW $\leq 10\ \mu s$, duty cycle $\leq 1\%$ 48 A
Allowable Power Dissipation	P_D	2.0 W
		$T_c = 25^\circ C$ 25 W
Channel Temperature	T_{ch}	150 $^\circ C$
Storage Temperature	T_{stg}	-55 to +150 $^\circ C$

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

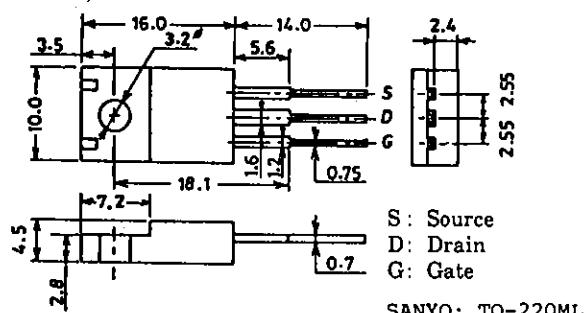
Electrical Characteristics at $T_A = 25^\circ C$			min	typ	max	unit
D-S Breakdown Voltage	$V_{(BR)DSS}$	$I_D = 1\text{mA}, V_{GS} = 0$		60		V
G-S Breakdown Voltage	$V_{(BR)GSS}$	$I_G = \pm 100\mu\text{A}, V_{DS} = 0$		± 15		V
Zero Gate Voltage	I_{DSS}	$V_{DS} = 60\text{V}, V_{GS} = 0$			100	μA
Drain Current						
Gate to Source Leakage Current	I_{GSS}	$V_{GS} = \pm 12\text{V}, V_{DS} = 0$			± 10	μA
Cutoff Voltage	$V_{GS(\text{off})}$	$V_{DS} = 10\text{V}, I_D = 1\text{mA}$	1.0		2.0	V
Forward Transfer Admittance	$ Y_{fs} $	$V_{DS} = 10\text{V}, I_D = 8\text{A}$	6.5	10.5		S
Static Drain to Source	$R_{DS(\text{on})}$	$I_D = 8\text{A}, V_{GS} = 10\text{V}$		60	80	$\text{m}\Omega$
on State Resistance	$R_{DS(\text{on})}$	$I_D = 8\text{A}, V_{GS} = 4\text{V}$		80	110	$\text{m}\Omega$
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	"		40		ns
Turn-OFF Delay Time	$t_{d(off)}$	"		95		ns
Fall Time	t_f	"		80		ns
Diode Forward Voltage	V_{SD}	$I_S = 12\text{A}, V_{GS} = 0$	1.0	1.5		V

Switching Time Test Circuit



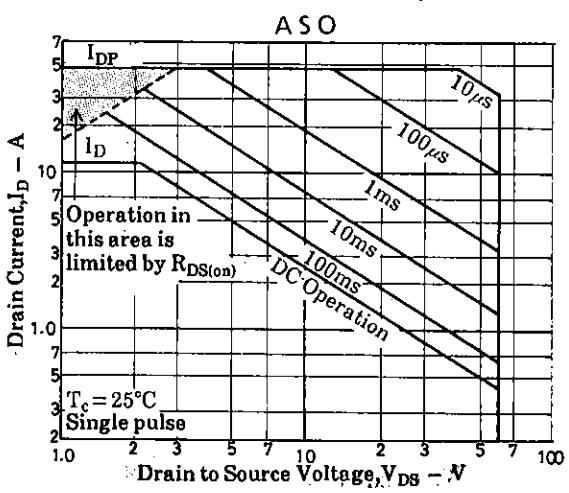
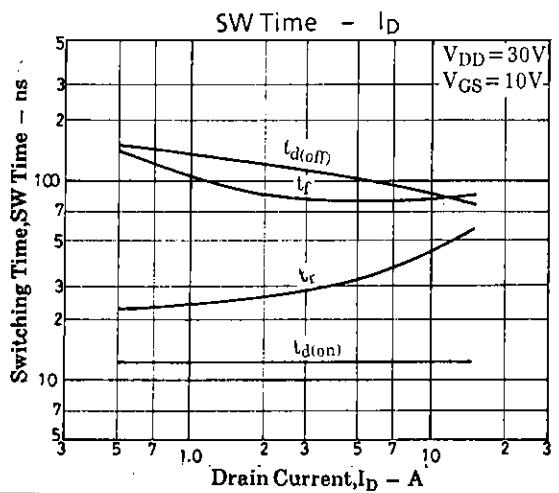
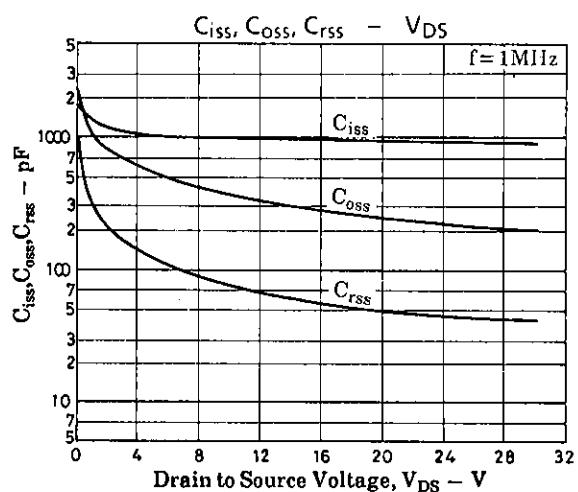
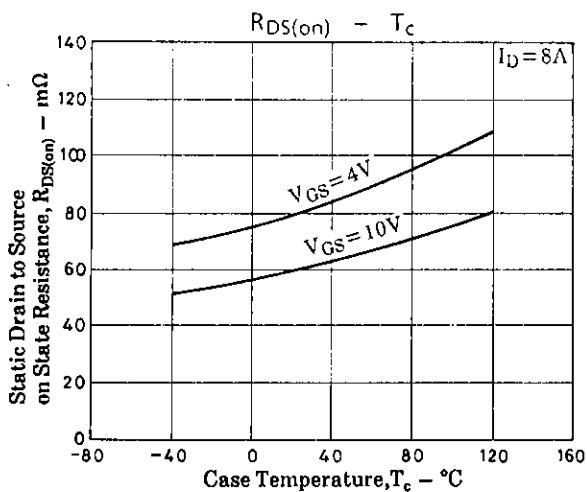
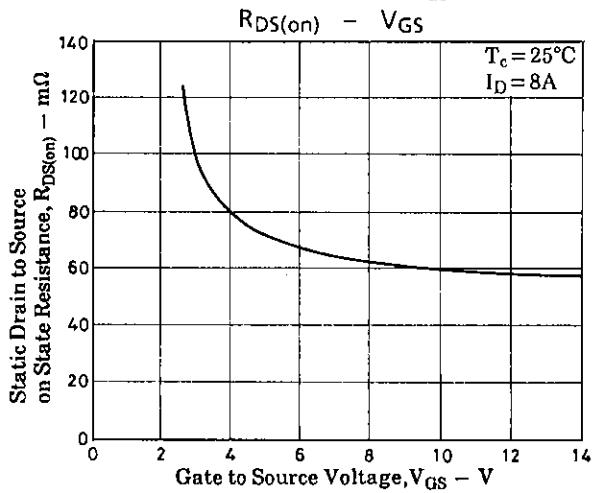
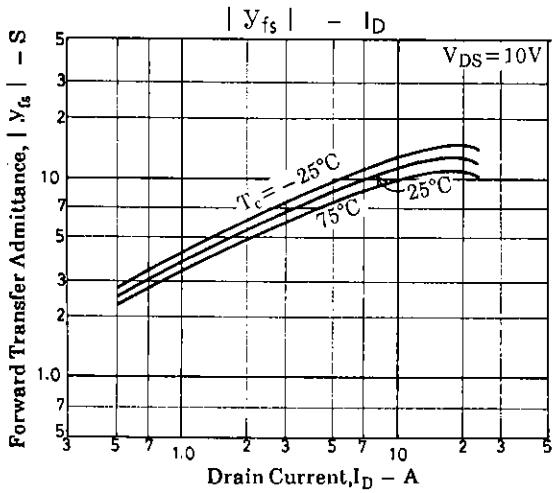
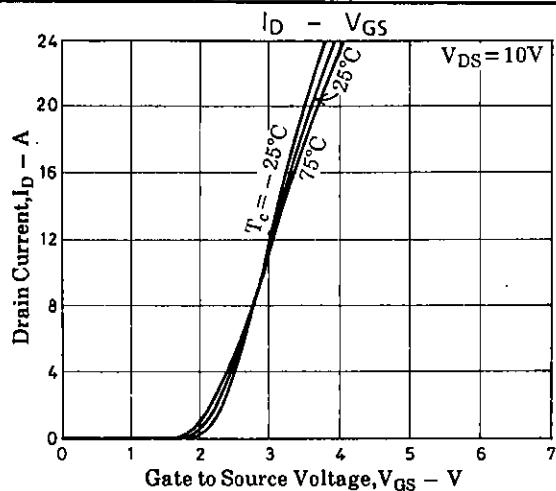
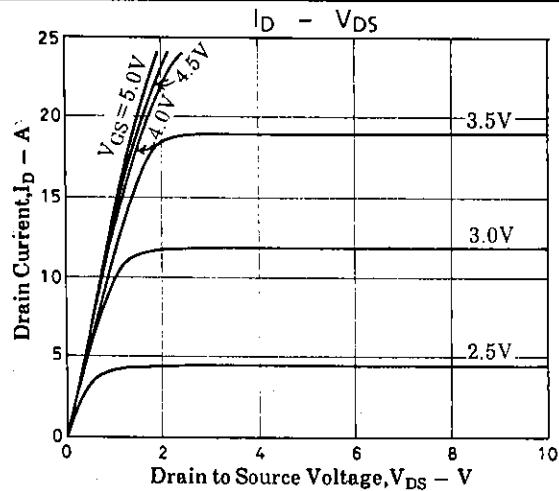
Package Dimensions 2063

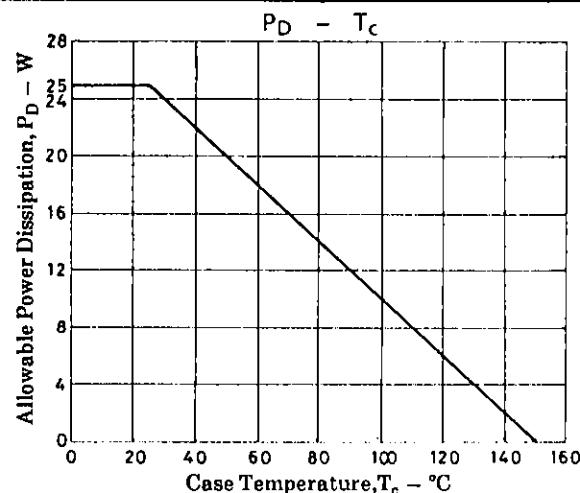
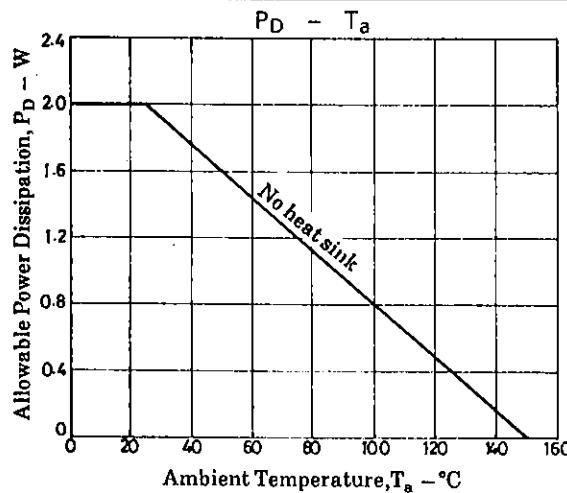
(unit : mm)



SANTO. TO 220HB

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