

	No.3815	2S3815
		2S3815 P-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 tapping.

Absolute Maximum Ratings at Ta = 25°C

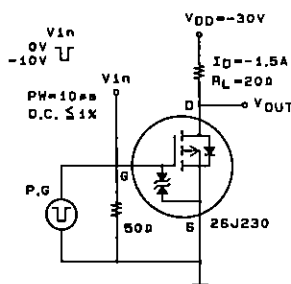
			unit
Drain to Source Voltage	V_{DS}	-60	V
Gate to Source Voltage	V_{GS}	± 15	V
Drain Current(DC)	I_D	-2.5	A
Drain Current(Pulse)	I_{DP}	-10	A
Allowable Power Dissipation	P_D	1.5	W
Channel Temperature	T_{ch}	150	°C
Storage Temperature	T_{stg}	-55 to +150	°C

$PW \leq 10\mu s$, duty cycle $\leq 1\%$

Electrical Characteristics at Ta = 25°C

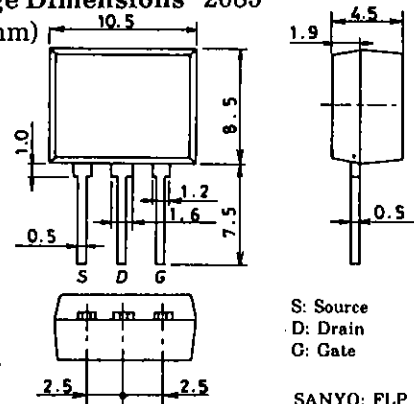
			min	typ	max	unit
D-S Breakdown Voltage	$V_{(BR)DSS}$	$I_D = -1mA, V_{GS} = 0$	-60			V
G-S Breakdown Voltage	$V_{(BR)GSS}$	$I_G = \pm 100\mu A, V_{DS} = 0$	± 15			V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS} = -60V, V_{GS} = 0$			-100	μA
Gate to Source Leakage Current	I_{GSS}	$V_{GS} = \pm 12V, V_{DS} = 0$			± 10	μA
Cutoff Voltage	$V_{GS(off)}$	$V_{DS} = -10V, I_D = -1mA$	-1.0		-2.0	V
Forward Transfer Admittance	$ Y_{fs} $	$V_{DS} = -10V, I_D = -1.5A$	2	3.5		S
Static Drain to Source on State Resistance	$R_{DS(on)}$	$I_D = -1.5A, V_{GS} = -10V$	0.16	0.21		Ω
	$R_{DS(on)}$	$I_D = -1.5A, V_{GS} = -4V$	0.21	0.27		Ω
Input Capacitance	C_{iss}	$V_{DS} = -20V, f = 1MHz$		950		pF
Output Capacitance	C_{oss}	$V_{DS} = -20V, f = 1MHz$		300		pF
Reverse Transfer Capacitance	C_{rss}	$V_{DS} = -20V, f = 1MHz$		75		pF
Turn-ON Delay Time	$t_{d(on)}$	See specified Test Circuit.		15		ns
Rise Time	t_r	"		35		ns
Turn-OFF Delay Time	$t_{d(off)}$	"		125		ns
Fall Time	t_f	"		90		ns
Diode Forward Voltage	V_{SD}	$I_S = -2.5A, V_{GS} = 0$	-1.0	-1.5		V

Switching Time Test Circuit



Package Dimensions 2085

(unit : mm)



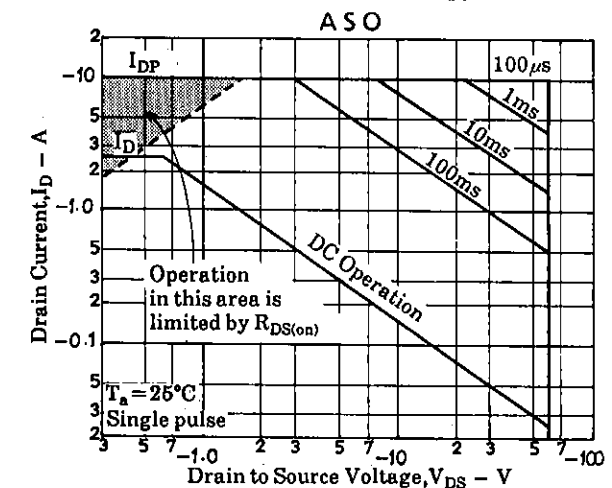
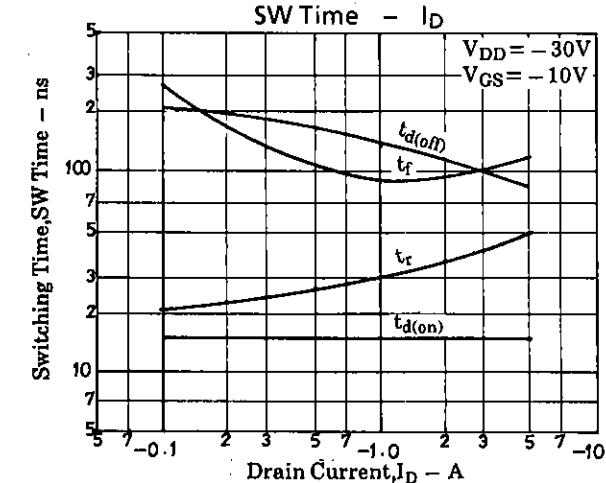
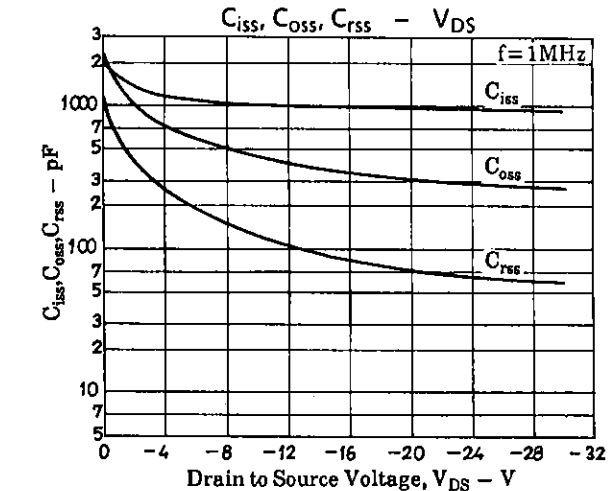
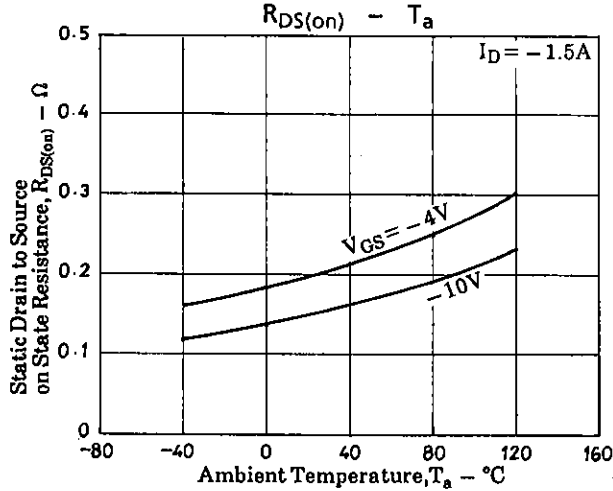
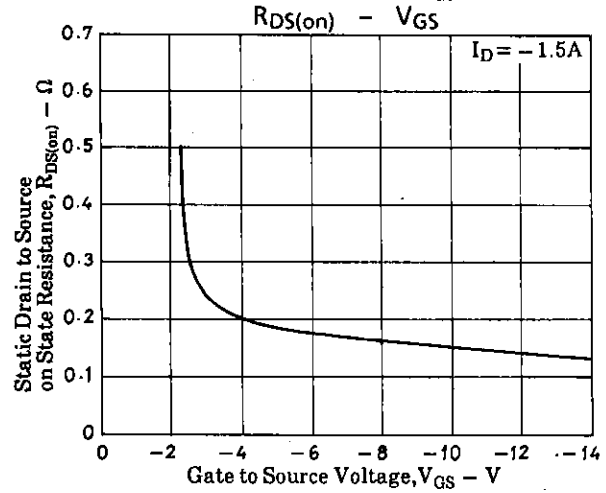
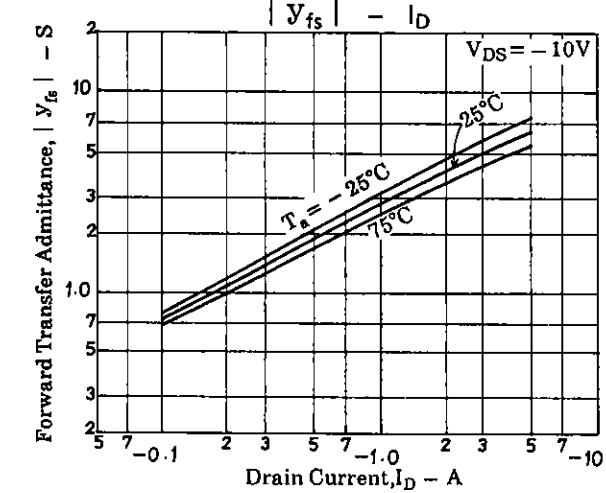
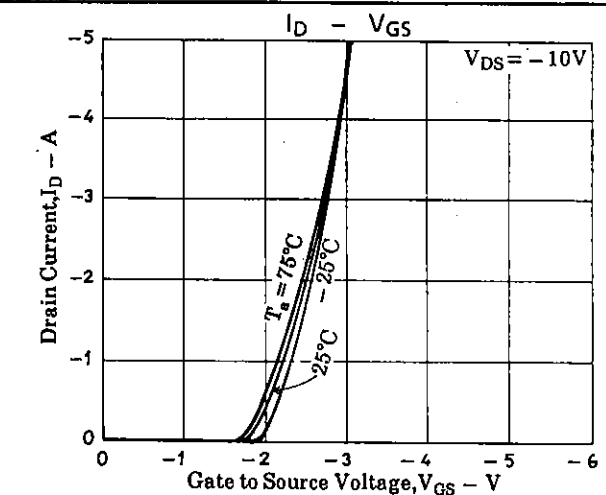
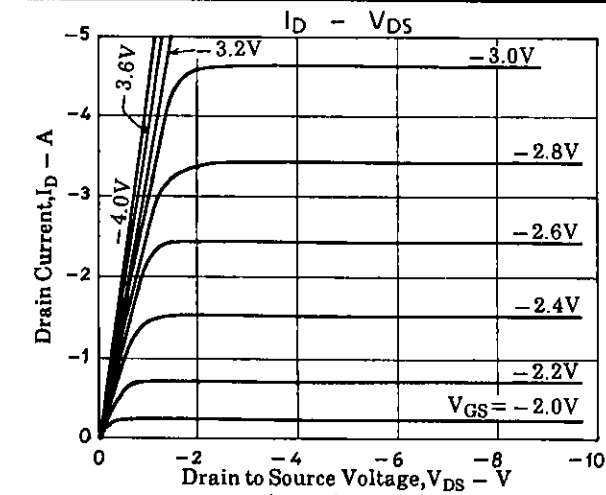
S: Source
D: Drain
G: Gate

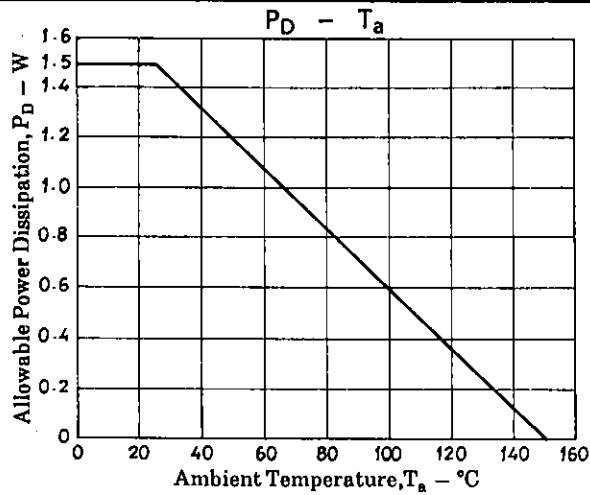
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