

SANYO

No.3816

2SJ231

P-Channel MOS Silicon FET

Very High-Speed Switching Applications

Features

- Small ON resistance.
- Very high-speed switching.
- Low-voltage drive.
- Meets radial taping.

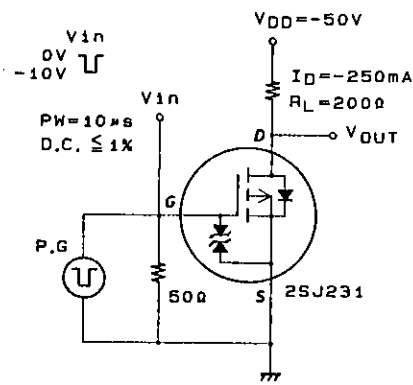
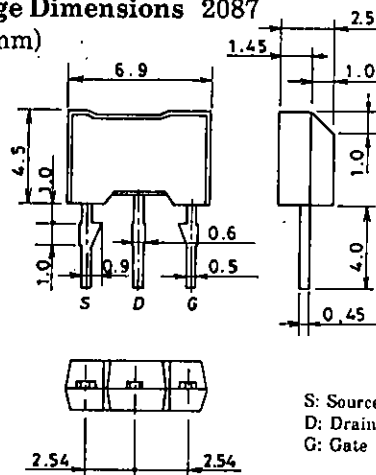
Absolute Maximum Ratings at $T_a = 25^\circ\text{C}$

			unit
Drain to Source Voltage	V_{DSS}	-100	V
Gate to Source Voltage	V_{GSS}	± 15	V
Drain Current (DC)	I_D	-0.5	A
Drain Current (Pulse)	I_{DP}	-2	A
Allowable Power Dissipation	P_D	1	W
Channel Temperature	T_{ch}	150	$^\circ\text{C}$
Storage Temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

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

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

			min	typ	max	unit
D-S Breakdown Voltage	$V_{(BR)DSS}$	$I_D = -1\text{mA}$, $V_{GS} = 0$	-100			V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS} = -100\text{V}$, $V_{GS} = 0$			-100	μA
Gate to Source Leakage Current	I_{GSS}	$V_{GS} = \pm 12\text{V}$, $V_{DS} = 0$			± 10	μA
Cutoff Current	$V_{GS(off)}$	$V_{DS} = -10\text{V}$, $I_D = -1\text{mA}$	-1.0		-2.0	V
Forward Transfer Admittance	$ Y_{fs} $	$V_{DS} = -10\text{V}$, $I_D = -250\text{mA}$	400	700		mS
Static Drain to Source on State Resistance	$R_{DS(on)}$	$I_D = -250\text{mA}$, $V_{GS} = -10\text{V}$		1.8	2.4	Ω
	$R_{DS(on)}$	$I_D = -250\text{mA}$, $V_{GS} = -4\text{V}$		2.4	3.5	Ω
Input Capacitance	C_{iss}	$V_{DS} = -20\text{V}$, $f = 1\text{MHz}$		160		pF
Output Capacitance	C_{oss}	$V_{DS} = -20\text{V}$, $f = 1\text{MHz}$		40		pF
Reverse Transfer Capacitance	C_{rss}	$V_{DS} = -20\text{V}$, $f = 1\text{MHz}$		6		pF
Turn-ON Delay Time	$t_{d(on)}$	See specified Test Circuit.		10		ns
Rise Time	t_r	"		12		ns
Turn-OFF Delay Time	$t_{d(off)}$	"		80		ns
Fall Time	t_f	"		40		ns
Diode Forward Voltage	V_{SD}	$I_S = -500\text{mA}$, $V_{GS} = 0$		-0.9		V

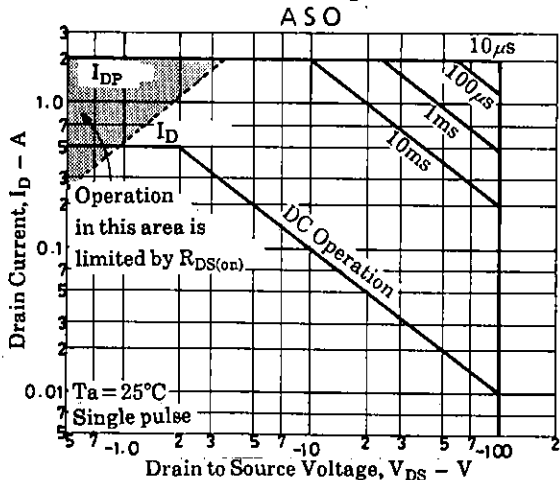
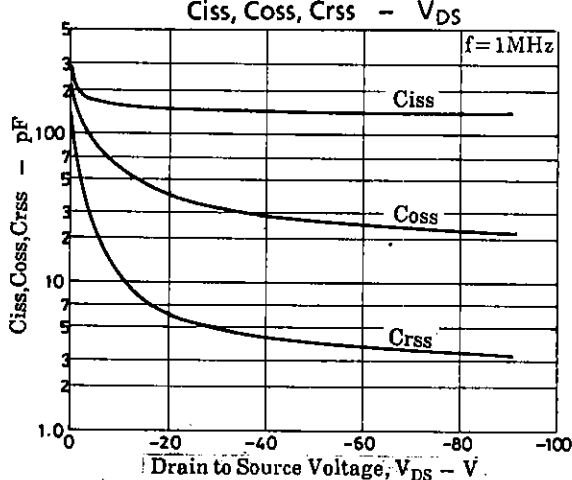
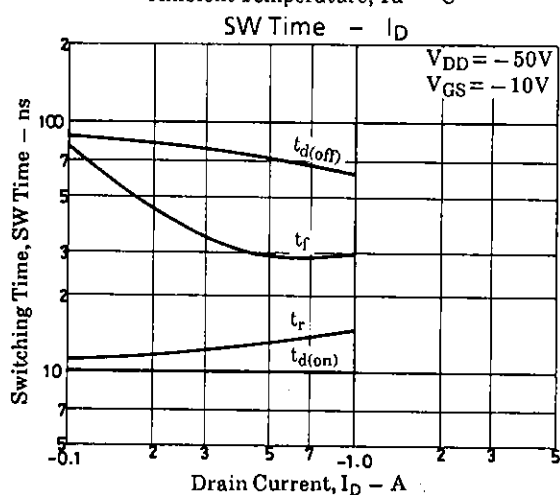
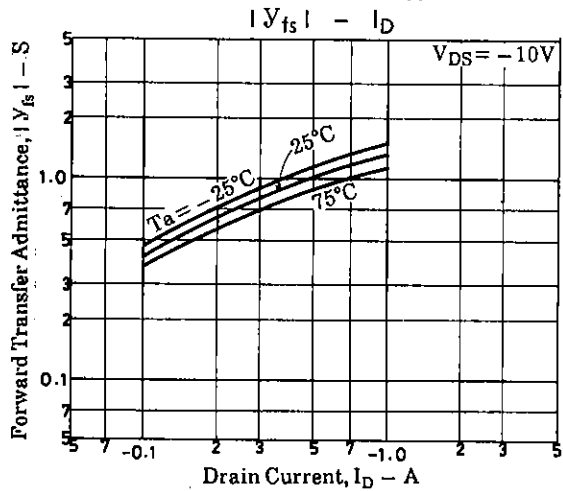
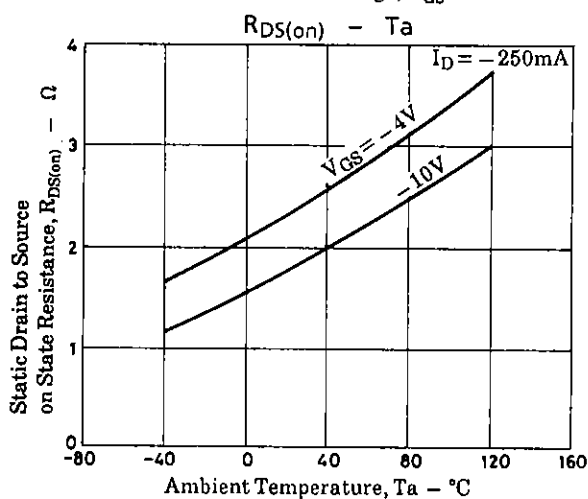
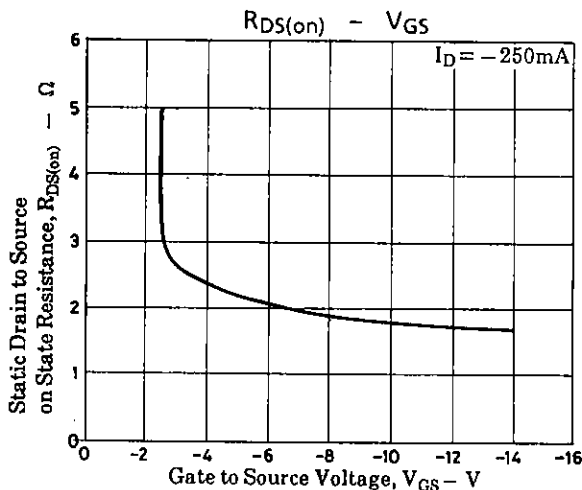
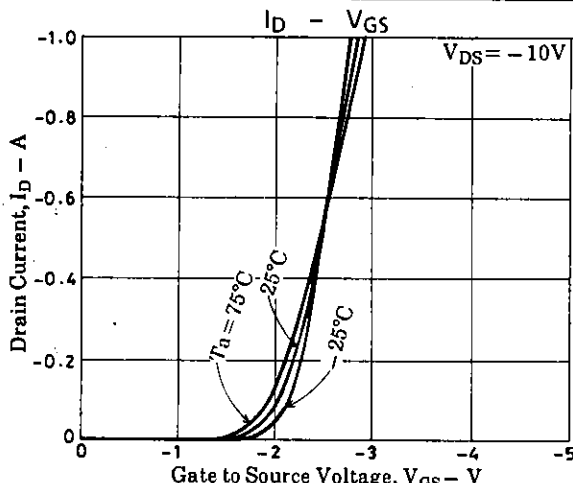
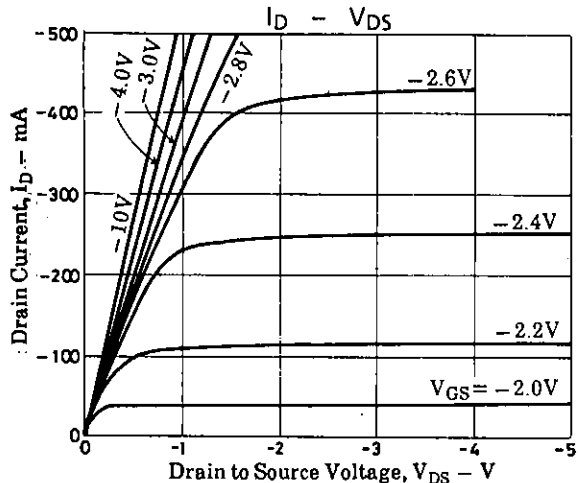
Switching Time Test Circuit**Package Dimensions 2087**
(unit: mm)

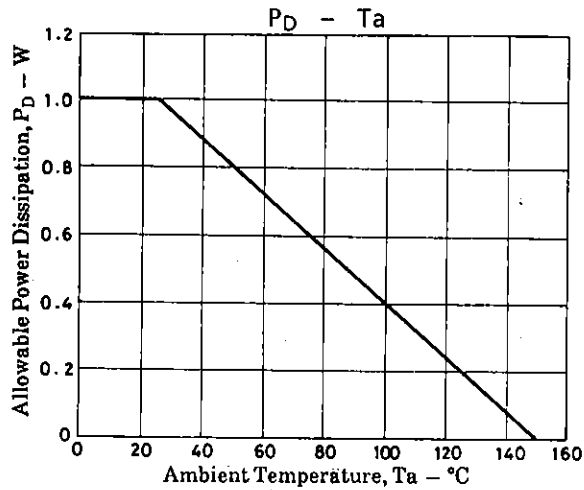
S: Source
D: Drain
G: Gate

SANYO: NMP

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