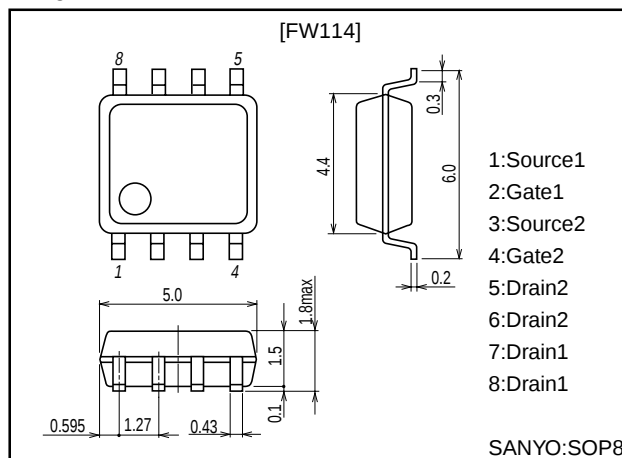


**FW114****S/W Load Applications****Features**

- Low ON resistance.
- 2.5V drive.

Package Dimensions

unit:mm

2129**Specifications****Absolute Maximum Ratings** at Ta = 25°C

Parameter	Symbol	Conditions	Ratings	Unit
Drain-to-Source Voltage	V_{DSS}		-20	V
Gate-to-Source Voltage	V_{GSS}		±10	V
Drain Current (DC)	I_D		-3	A
Drain Current (pulse)	I_{DP}	PW≤10μs, duty cycle≤1%	-32	A
Allowable Power Dissipation	P_D	Mounted on ceramic board (1000mm ² ×0.8mm) 1unit	1.7	W
Total Dissipation	P_T	Mounted on ceramic board (1000mm ² ×0.8mm)	2.0	W
Channel Temperature	Tch		150	°C
Storage Temperature	Tstg		-55 to +150	°C

Electrical Characteristics at Ta = 25°C

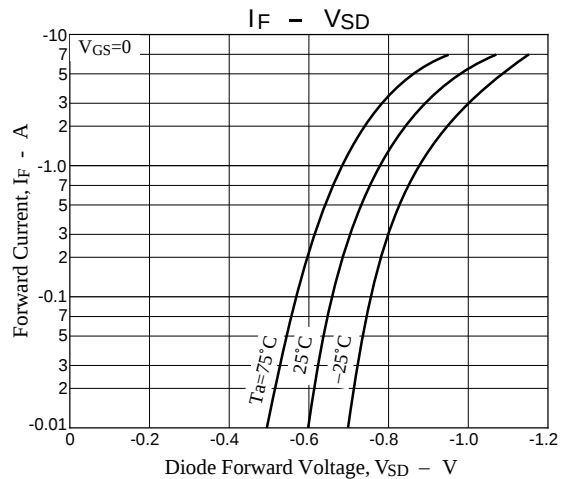
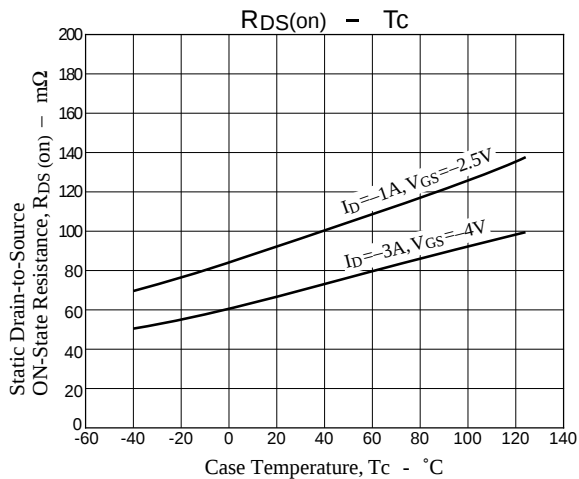
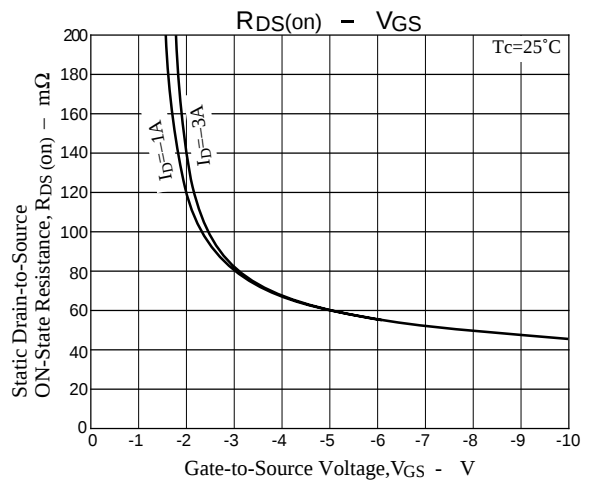
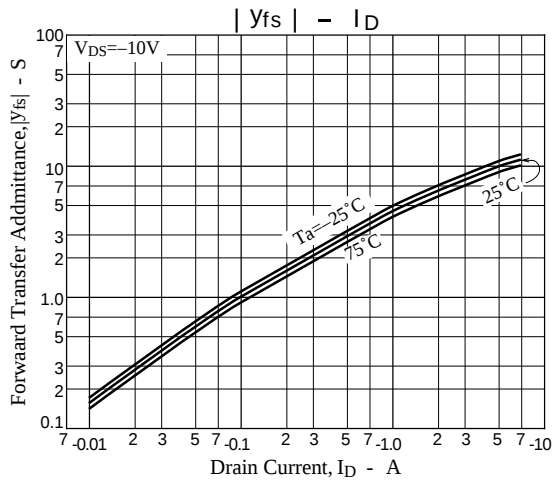
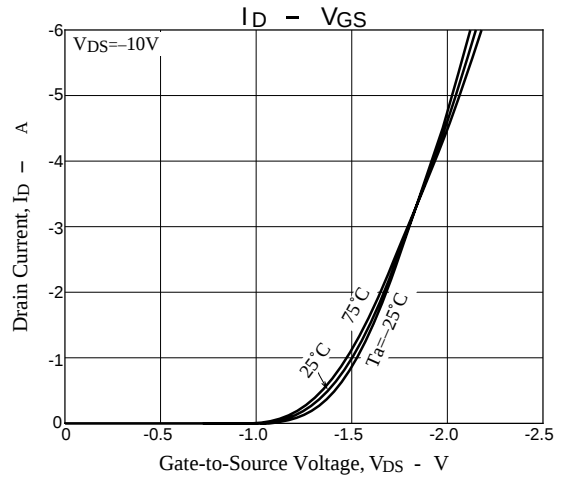
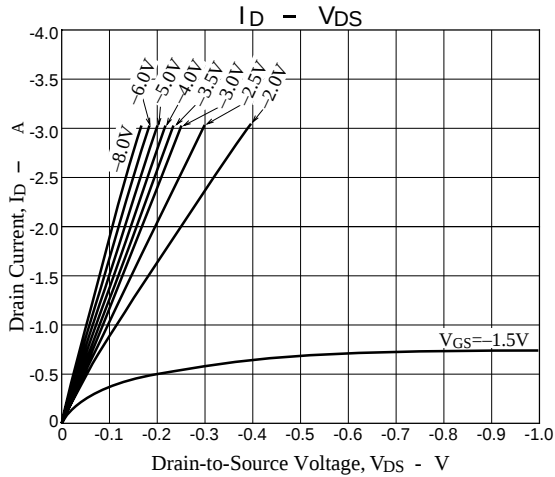
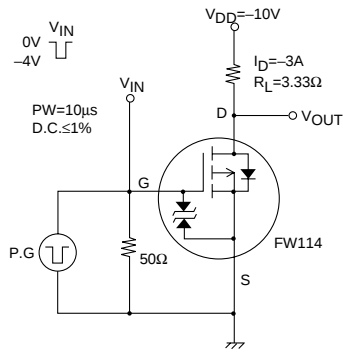
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
D-S Breakdown Voltage	$V_{(BR)DSS}$	$I_D = -1mA, V_{GS} = 0$	-20			V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS} = -20V, V_{GS} = 0$			-100	μA
Gate-to-Source Leakage Current	I_{GSS}	$V_{GS} = \pm 8V, V_{DS} = 0$			±10	μA
Cutoff Current	$V_{GS(off)}$	$V_{DS} = -10V, I_D = -1mA$	-0.4		-1.4	V
Forward Transfer Admittance	y _{fs}	$V_{DS} = -10V, I_D = -3A$	5	8		S
Static Drain-to-Source ON-State Resistance	$R_{DS(on)1}$	$I_D = -3A, V_{GS} = -4V$		70	90	mΩ
	$R_{DS(on)2}$	$I_D = -1A, V_{GS} = -2.5V$		92	130	mΩ
Input Capacitance	Ciss	$V_{DS} = -10V, f = 1MHz$		600		pF
Output Capacitance	Coss	$V_{DS} = -10V, f = 1MHz$		300		pF
Reverse Transfer Capacitance	Crss	$V_{DS} = -10V, f = 1MHz$		150		pF
Turn-ON Delay Time	t _{d(on)}	See specified Test Circuit		15		ns
Rise Time	t _r	See specified Test Circuit		140		ns
Turn-OFF Delay Time	t _{d(off)}	See specified Test Circuit		80		ns
Fall Time	t _f	See specified Test Circuit		85		ns
Total Gate Charge	Qg	$V_{DS} = -10V, V_{GS} = -10V, I_D = -3A$		24		nC
Gate-to-Source Charge	Qgs	$V_{DS} = -10V, V_{GS} = -10V, I_D = -3A$		3		nC
Gate-to-Drain ("Miller") Charge	Qgd	$V_{DS} = -10V, V_{GS} = -10V, I_D = -3A$		6		nC
Diode Forward Voltage	V _{SD}	$I_S = -3A, V_{GS} = 0$		-1.0	-1.5	V

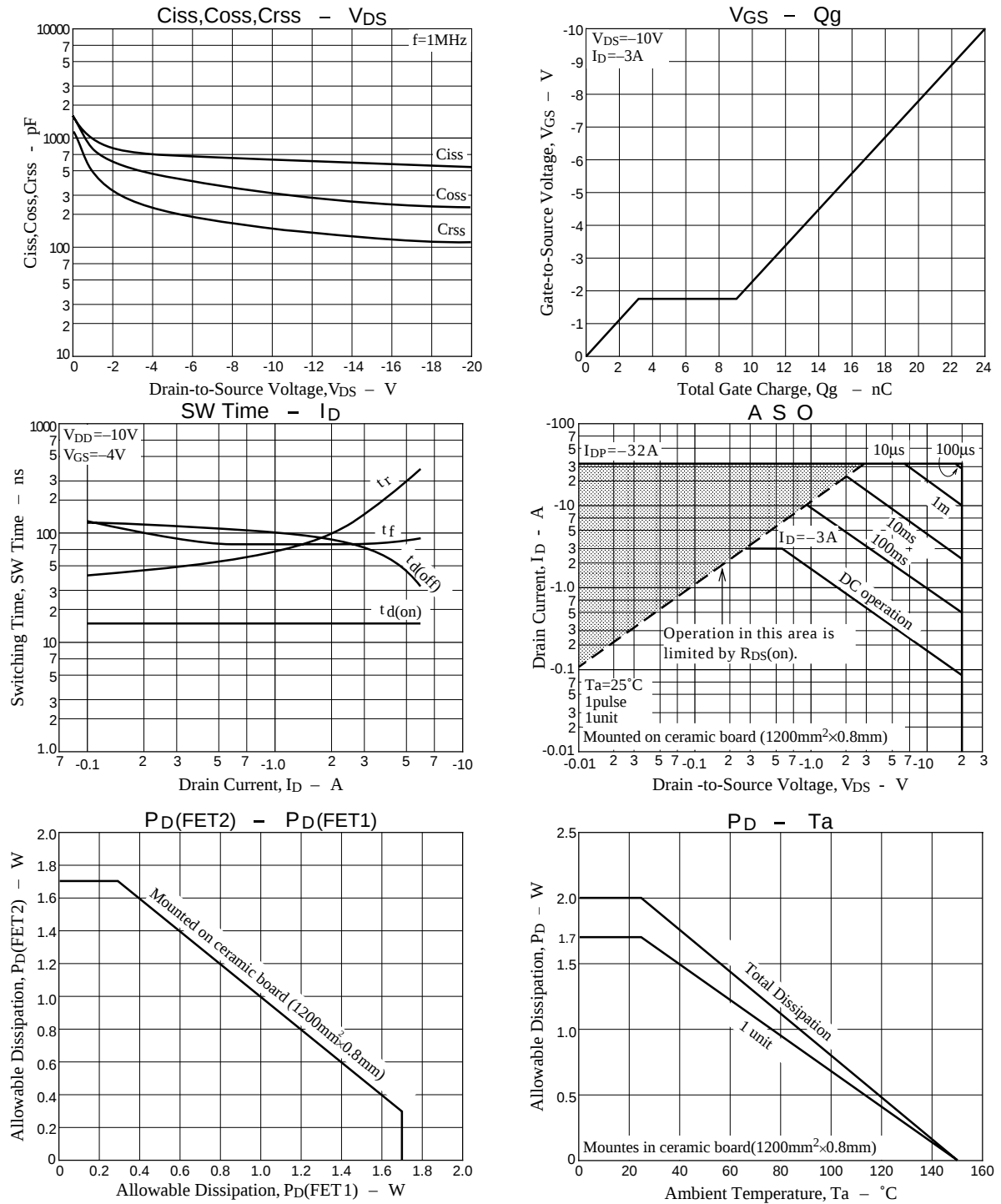
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52698TS (KOTO) TA-1217 No.5848-1/3

Switching Time Test Circuit





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