



S/W Load Applications

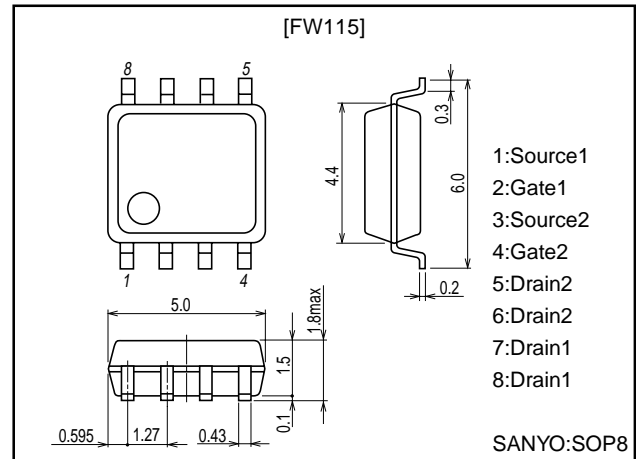
Features

- 4V drive.
- Low ON resistance.

Package Dimensions

unit:mm

2129



Specifications

Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Conditions	Ratings	Unit
Drain-to-Source Voltage	V_{DSS}		-30	V
Gate-to-Source Voltage	V_{GSS}		±20	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 (1200mm ² ×0.8mm) 1unit	1.7	W
Total Dissipation	P_T	Mounted on ceramic board (1200mm ² ×0.8mm)	2.0	W
Channel Temperature	Tch		150	°C
Storage Temperature	Tstg		-55 to +150	°C

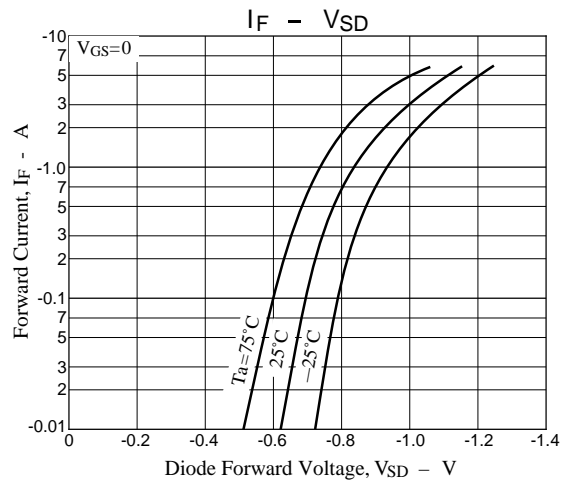
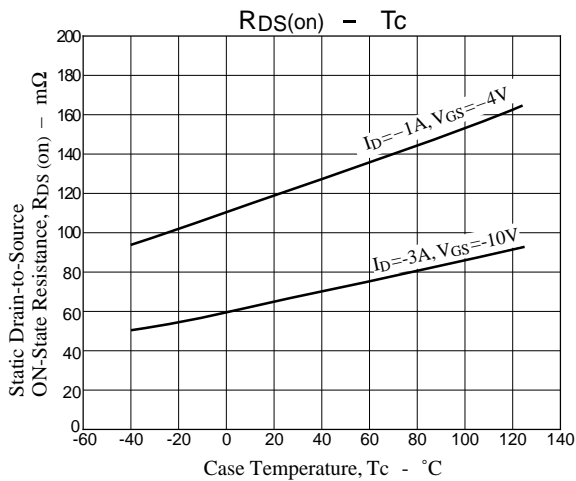
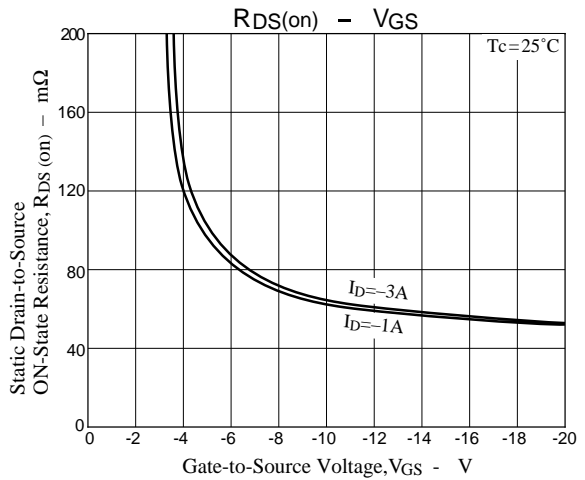
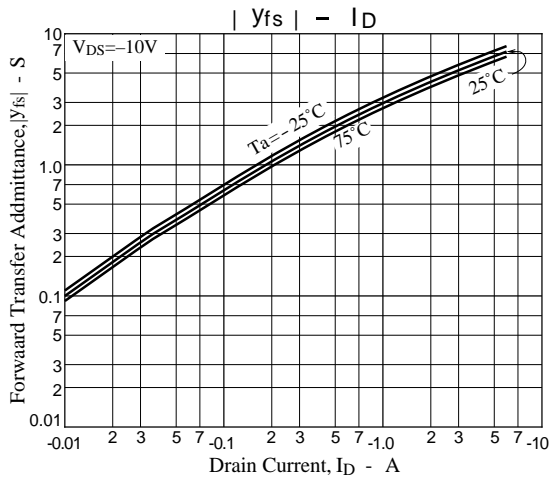
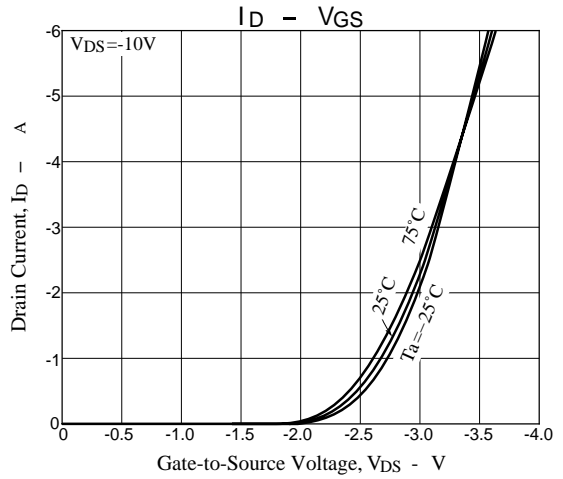
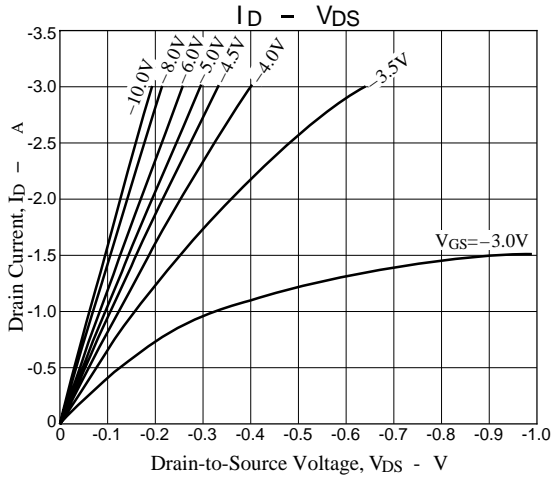
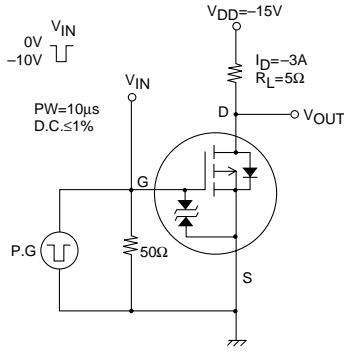
Electrical Characteristics at Ta = 25°C

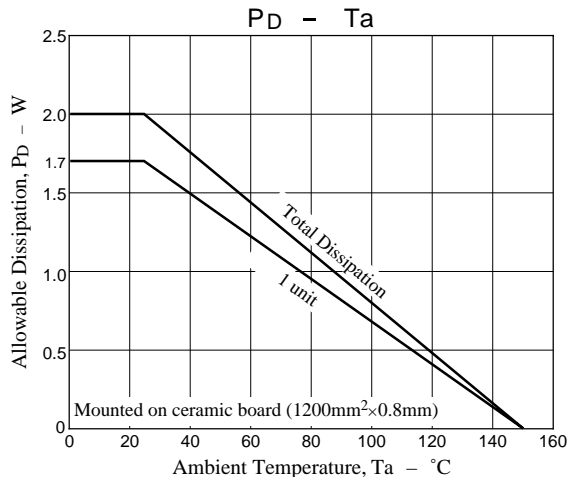
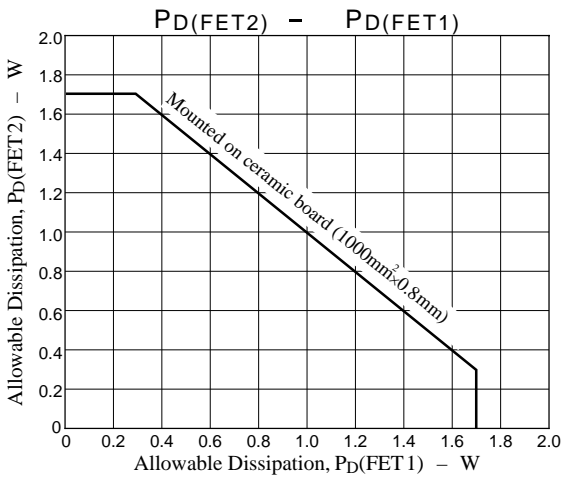
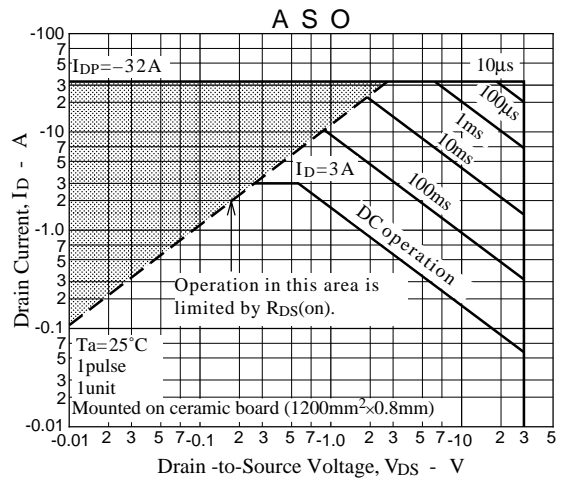
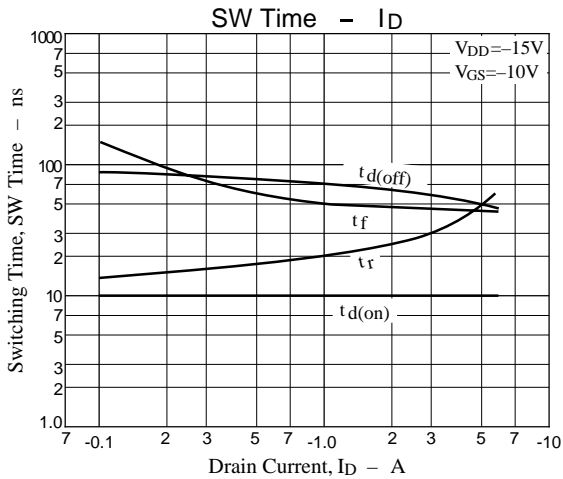
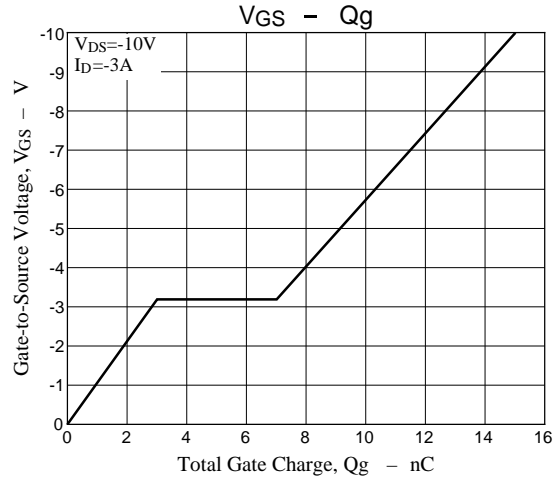
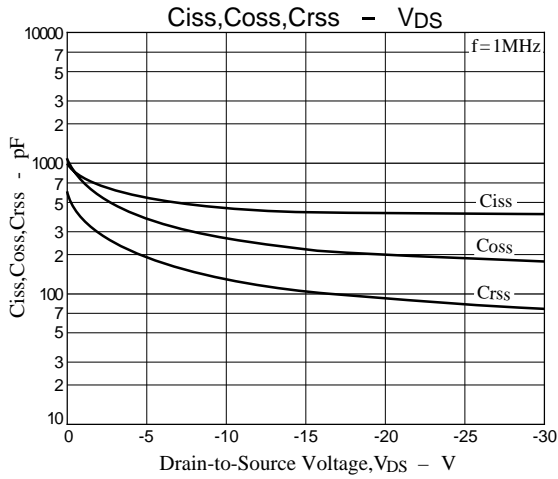
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
D-S Breakdown Voltage	$V_{(BR)DSS}$	$I_D=-1mA, V_{GS}=0$	-30			V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=-30V, V_{GS}=0$			-100	μA
Gate-to-Source Leakage Current	I_{GSS}	$V_{GS}=\pm 16V, V_{DS}=0$			±10	μA
Cutoff Current	$V_{GS(off)}$	$V_{DS}=-10V, I_D=-1mA$	-1.0		-2.5	V
Forward Transfer Admittance	yfs	$V_{DS}=-10V, I_D=-3A$	3	5		S
Static Drain-to-Source ON-State Resistance	$R_{DS(on)1}$	$I_D=-3A, V_{GS}=-10V$		65	85	mΩ
	$R_{DS(on)2}$	$I_D=-1A, V_{GS}=-4V$		135	190	mΩ
Input Capacitance	Ciss	$V_{DS}=-10V, f=1MHz$		470		pF
Output Capacitance	Coss	$V_{DS}=-10V, f=1MHz$		280		pF
Reverse Transfer Capacitance	Crss	$V_{DS}=-10V, f=1MHz$		140		pF
Turn-ON Delay Time	t _{d(on)}	See specified Test Circuit		10		ns
Rise Time	t _r	See specified Test Circuit		30		ns
Turn-OFF Delay Time	t _{d(off)}	See specified Test Circuit		60		ns
Fall Time	t _f	See specified Test Circuit		45		ns
Total Gate Charge	Qg	$V_{DS}=-10V, V_{GS}=-10V, I_D=-3A$		15		nC
Gate-to-Source Charge	Qgs	$V_{DS}=-10V, V_{GS}=-10V, I_D=-3A$		3		nC
Gate-to-Drain ("Miller") Charge	Qgd	$V_{DS}=-10V, V_{GS}=-10V, I_D=-3A$		4		nC
Diode Forward Voltage	V _{SD}	$I_S=-3A, V_{GS}=0$	-1.0	-1.5		V

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Switching Time Test Circuit





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