

Ordering number : ENA0348



SANYO Semiconductors

DATA SHEET

FSS162 — P-Channel Silicon MOSFET
General-Purpose Switching Device
Applications

Features

- Low ON-resistance.
- 4V drive.

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		-8	A
Drain Current (PW≤10s)	I _D	Duty cycle≤1%	-10	A
Drain Current (PW≤10μs)	I _{DP}	Duty cycle≤1%	-52	A
Allowable Power Dissipation	P _D	Mounted on a ceramic board (1200mm ² X0.8mm), PW≤10s	2.4	W
Channel Temperature	T _{ch}		150	°C
Storage Temperature	T _{stg}		-55 to +150	°C

Electrical Characteristics at Ta=25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Drain-to-Source Breakdown Voltage	V _{(BR)DSS}	I _D =-1mA, V _{GS} =0V	-30			V
Zero-Gate Voltage Drain Current	I _{DSS}	V _D =-30V, V _{GS} =0V			-1	μA
Gate-to-Source Leakage Current	I _{GSS}	V _{GS} =±16V, V _D =0V			±10	μA
Cutoff Voltage	V _{GSS(off)}	V _D =-10V, I _D =-1mA	-1.0		-2.4	V
Forward Transfer Admittance	y _{fs}	V _D =-10V, I _D =-8A	9	15		S
Static Drain-to-Source On-State Resistance	R _{DS(on)1}	I _D =-8A, V _{GS} =-10V		18	24	mΩ
	R _{DS(on)2}	I _D =-4A, V _{GS} =-4.5V		26	37	mΩ
	R _{DS(on)3}	I _D =-4A, V _{GS} =-4V		30	43	mΩ
Input Capacitance	C _{iss}	V _D =-10V, f=1MHz		2500		pF
Output Capacitance	C _{oss}	V _D =-10V, f=1MHz		460		pF
Reverse Transfer Capacitance	C _{rss}	V _D =-10V, f=1MHz		370		pF

Marking : S162

Continued on next page.

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FSS162

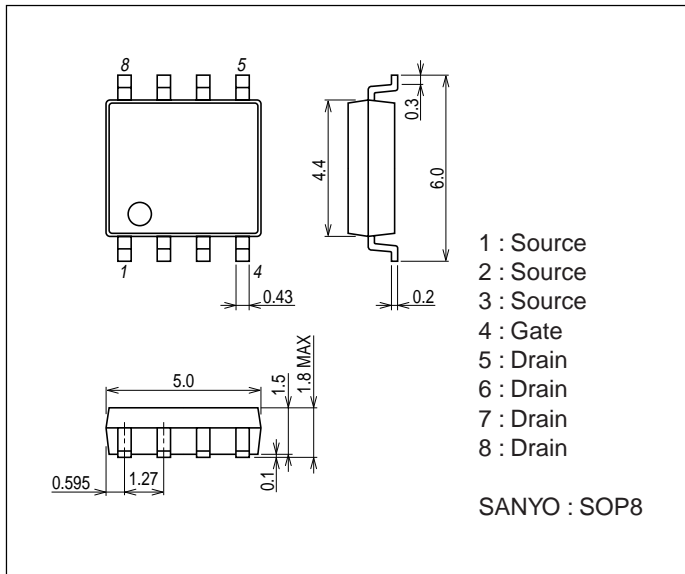
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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Turn-ON Delay Time	$t_{d(on)}$	See specified Test Circuit.		28		ns
Rise Time	t_r	See specified Test Circuit.		180		ns
Turn-OFF Delay Time	$t_{d(off)}$	See specified Test Circuit.		140		ns
Fall Time	t_f	See specified Test Circuit.		100		ns
Total Gate Charge	Qg	$V_{DS}=-10V, V_{GS}=-10V, I_D=-8A$		47		nC
Gate-to-Source Charge	Qgs	$V_{DS}=-10V, V_{GS}=-10V, I_D=-8A$		7		nC
Gate-to-Drain "Miller" Charge	Qgd	$V_{DS}=-10V, V_{GS}=-10V, I_D=-8A$		9		nC
Diode Forward Voltage	V_{SD}	$I_S=-8A, V_{GS}=0V$		-0.83	-1.5	V

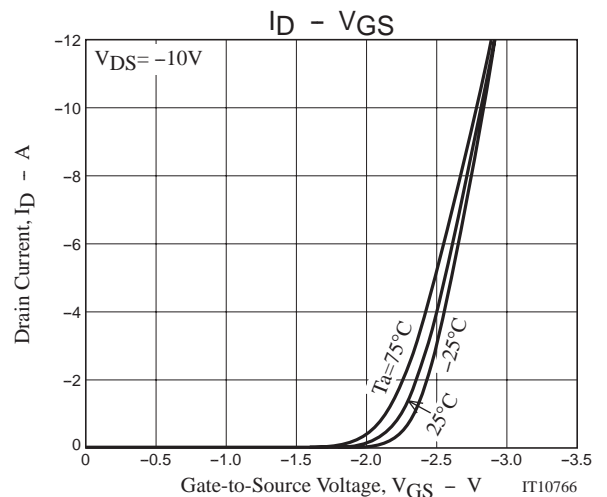
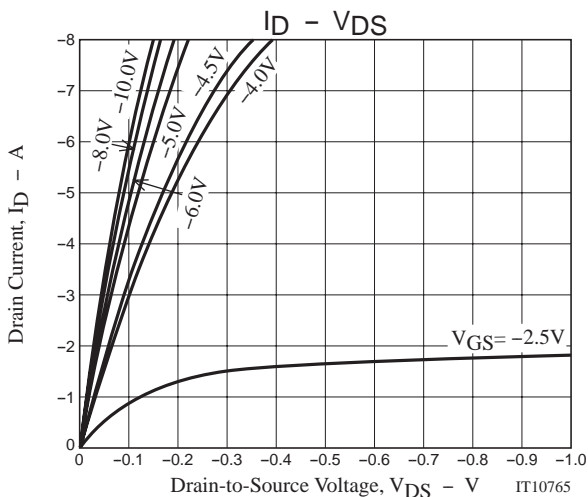
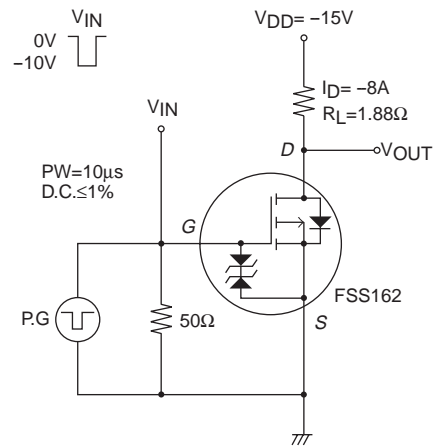
Package Dimensions

unit : mm

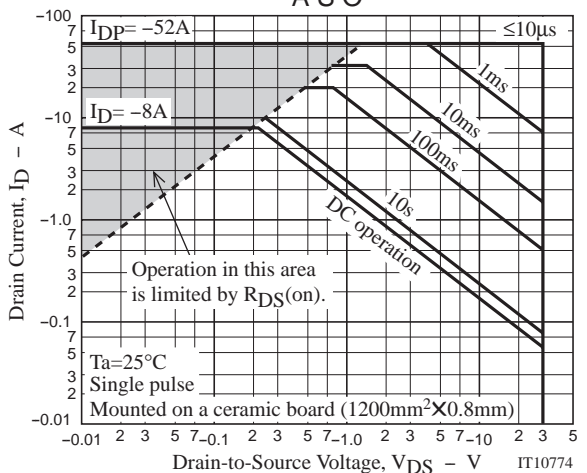
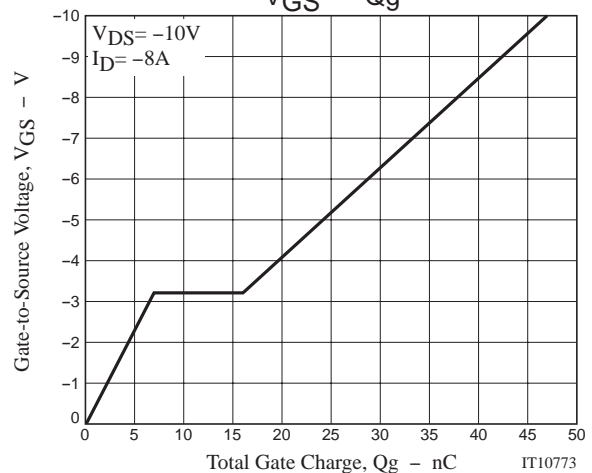
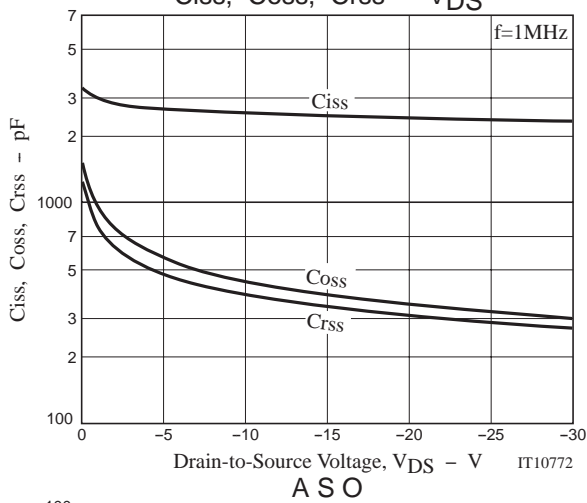
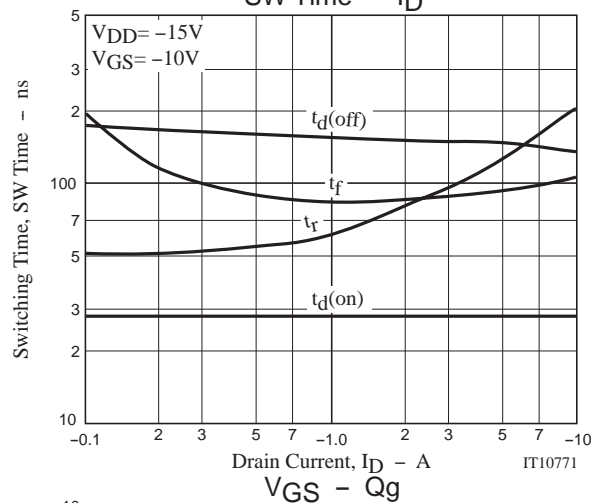
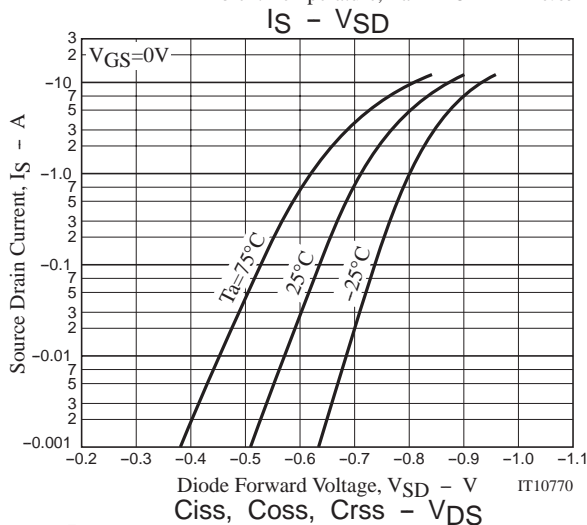
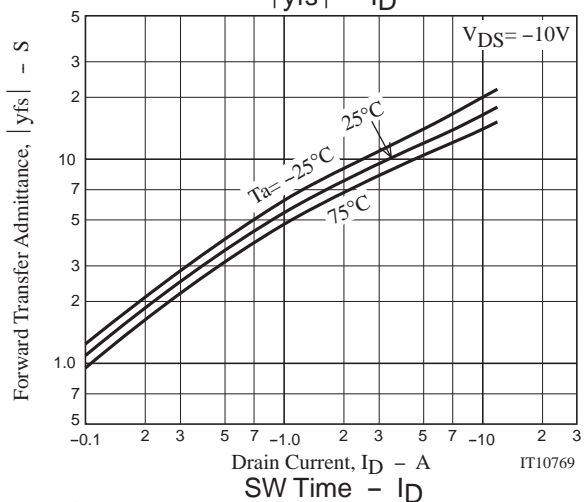
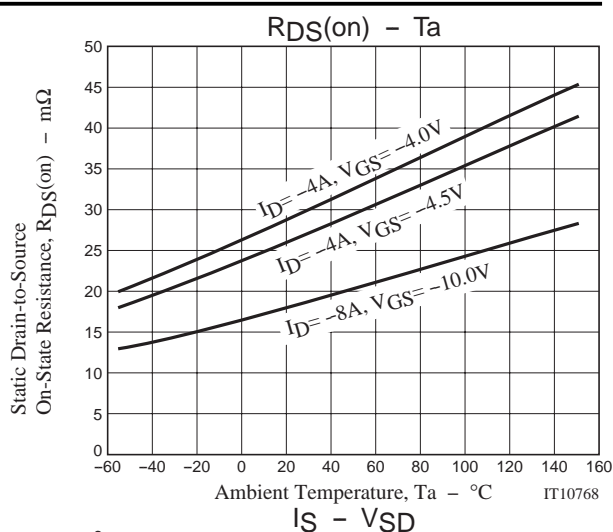
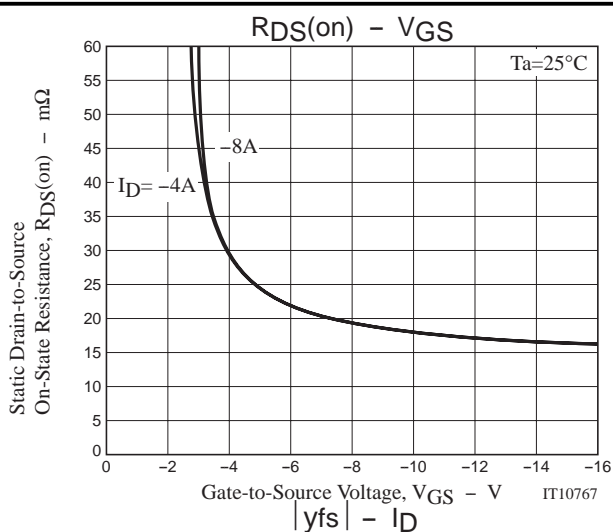
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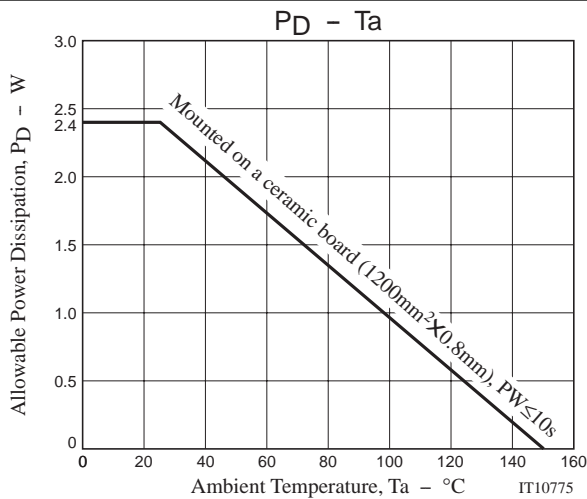
Switching Time Test Circuit



FSS162



FSS162



Note on usage : Since the FSS162 is a MOSFET product, please avoid using this device in the vicinity of highly charged objects.

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