

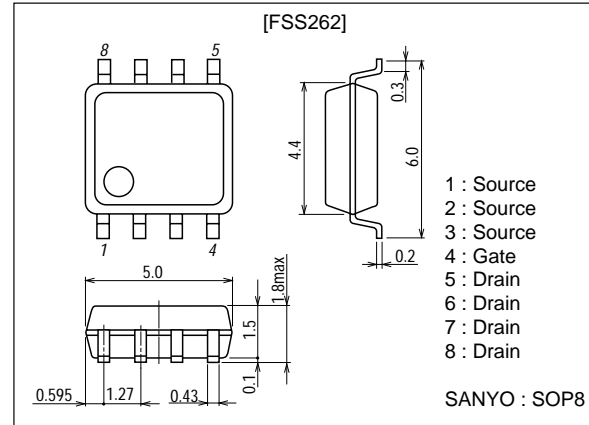
**FSS262****DC / DC Converter Applications****Features**

- Low ON-resistance.
- 4V drive.
- Ultrahigh speed switching.

**Package Dimensions**

unit : mm

2116

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

Parameter	Symbol	Conditions	Ratings	Unit
Drain-to-Source Voltage	V <sub>DSS</sub>		30	V
Gate-to-Source Voltage	V <sub>GSS</sub>		±20	V
Drain Current (DC)	I <sub>D</sub>		10	A
Drain Current (Pulse)	I <sub>DP</sub>	PW≤10μs, duty cycle≤1%	52	A
Allowable Power Dissipation	P <sub>D</sub>	Mounted on a ceramic board (1200mm <sup>2</sup> X0.8mm)	1.8	W
Channel Temperature	T <sub>ch</sub>		150	°C
Storage Temperature	T <sub>stg</sub>		-55 to +150	°C

**Electrical Characteristics** at Ta=25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Drain-to-Source Breakdown Voltage	V <sub>(BR)DSS</sub>	I <sub>D</sub> =1mA, V <sub>GS</sub> =0	30			V
Zero-Gate Voltage Drain Current	I <sub>DSS</sub>	V <sub>DS</sub> =30V, V <sub>GS</sub> =0			1	μA
Gate-to-Source Leakage Current	I <sub>GSS</sub>	V <sub>GS</sub> =±16V, V <sub>DS</sub> =0			±10	μA
Cutoff Voltage	V <sub>GSS(off)</sub>	V <sub>DS</sub> =10V, I <sub>D</sub> =1mA	1.0		2.4	V
Forward Transfer Admittance	y <sub>fs</sub>	V <sub>DS</sub> =10V, I <sub>D</sub> =10A	9.5	13.5		S

Marking : S262

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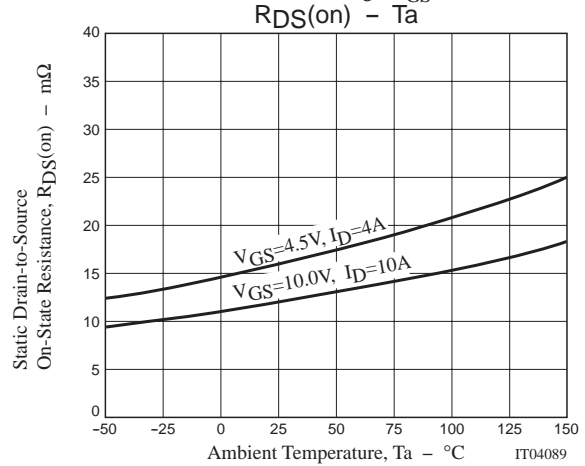
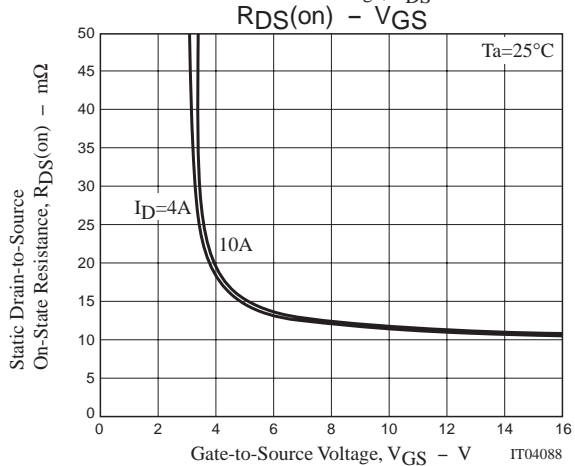
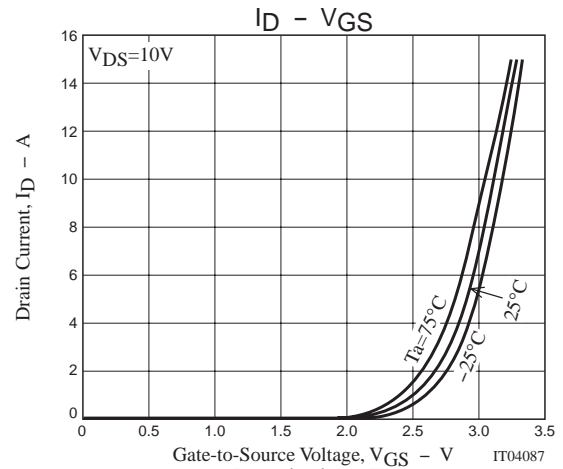
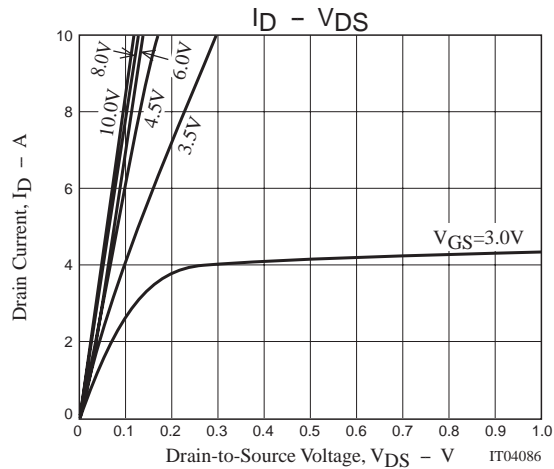
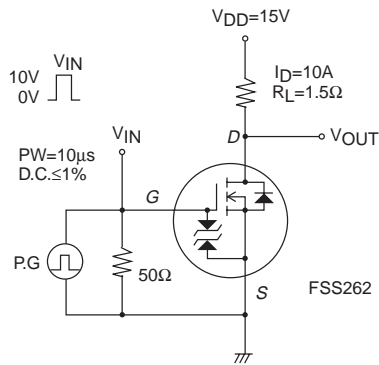
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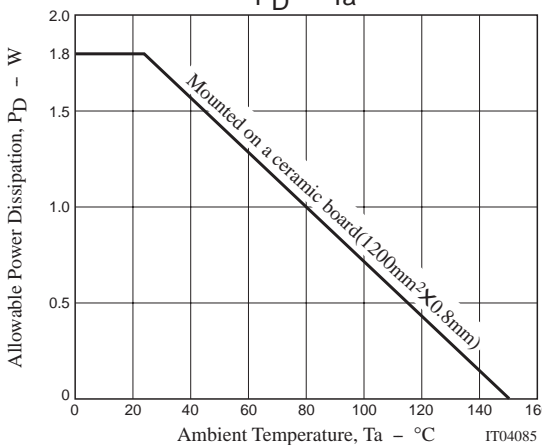
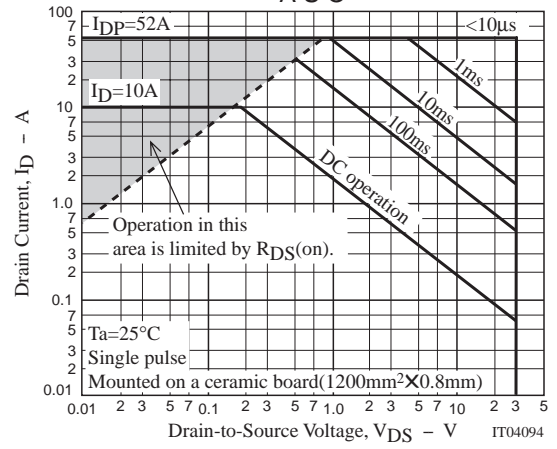
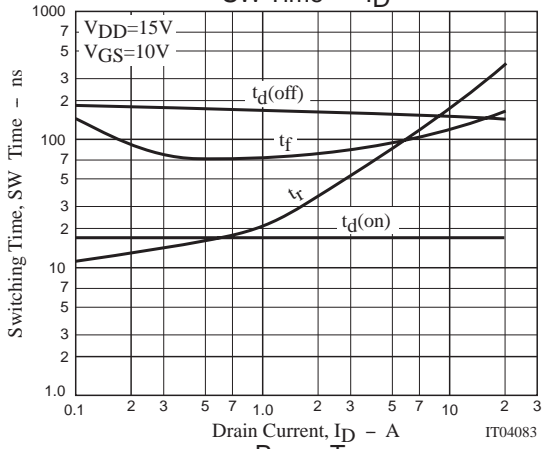
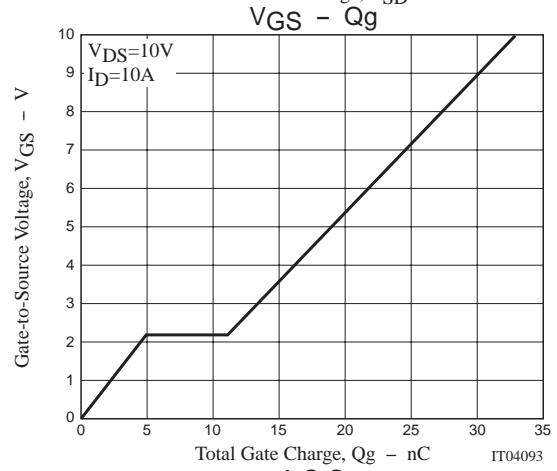
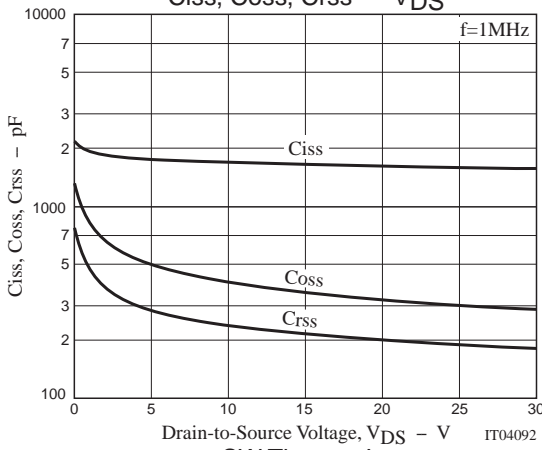
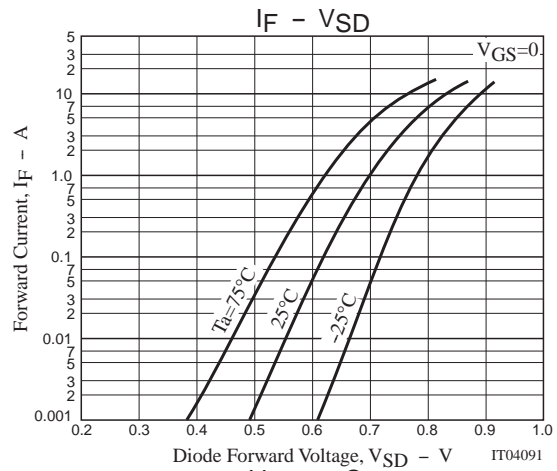
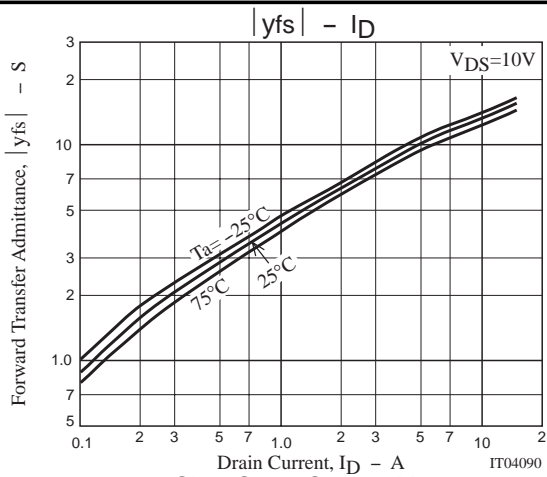
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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Static Drain-to-Source On-State Resistance	$R_{DS(on)1}$	$I_D=10A, V_{GS}=10V$		12	16	$m\Omega$
	$R_{DS(on)2}$	$I_D=4A, V_{GS}=4.5V$		16	23	$m\Omega$
Input Capacitance	$C_{iss}$	$V_{DS}=10V, f=1MHz$		1700		$pF$
Output Capacitance	$C_{oss}$	$V_{DS}=10V, f=1MHz$		400		$pF$
Reverse Transfer Capacitance	$C_{rss}$	$V_{DS}=10V, f=1MHz$		240		$pF$
Turn-ON Delay Time	$t_d(on)$	See specified Test Circuit		17		ns
Rise Time	$t_r$	See specified Test Circuit		160		ns
Turn-OFF Delay Time	$t_d(off)$	See specified Test Circuit		155		ns
Fall Time	$t_f$	See specified Test Circuit		120		ns
Total Gate Charge	$Q_g$	$V_{DS}=10V, V_{GS}=10V, I_D=10A$		33		nC
Gate-to-Source Charge	$Q_{gs}$	$V_{DS}=10V, V_{GS}=10V, I_D=10A$		5		nC
Gate-to-Drain "Miller" Charge	$Q_{gd}$	$V_{DS}=10V, V_{GS}=10V, I_D=10A$		6		nC
Diode Forward Voltage	$V_{SD}$	$I_S=10A, V_{GS}=0$		0.83	1.2	V

## Switching Time Test Circuit





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