

**FTS1018**

Load Switching Applications

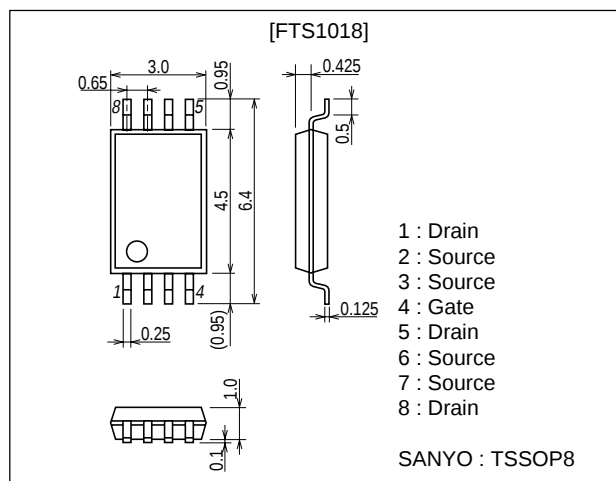
Features

- Low ON-resistance.
- 4V drive.
- Mounting height 1.1mm.

Package Dimensions

unit : mm

2147A



Specifications

Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Drain-to-Source Voltage	V_{DS}		-30	V
Gate-to-Source Voltage	V_{GS}		± 20	V
Drain Current (DC)	I_D		-4	A
Drain Current (Pulse)	I_{DP}	$PW \leq 10\mu s$, duty cycle $\leq 1\%$	-32	A
Allowable Power Dissipation	P_D	Mounted on a ceramic board (1000mm ² X0.8mm)	1.3	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	
Drain-to-Source Breakdown Voltage	$V_{(BR)DSS}$	$I_D = -1mA$, $V_{GS} = 0$	-30			V
Zero-Gate Voltage Drain Current	I_{DSS}	$V_{DS} = -30V$, $V_{GS} = 0$			-1	μA
Gate-to-Source Leakage Current	I_{GSS}	$V_{GS} = \pm 16V$, $V_{DS} = 0$			± 10	μA
Cutoff Voltage	$V_{GS(off)}$	$V_{DS} = -10V$, $I_D = -1mA$	-1.0		-2.4	V
Forward Transfer Admittance	$ y_{fs} $	$V_{DS} = -10V$, $I_D = -4A$	4.6	6.5		S

Marking : S1018

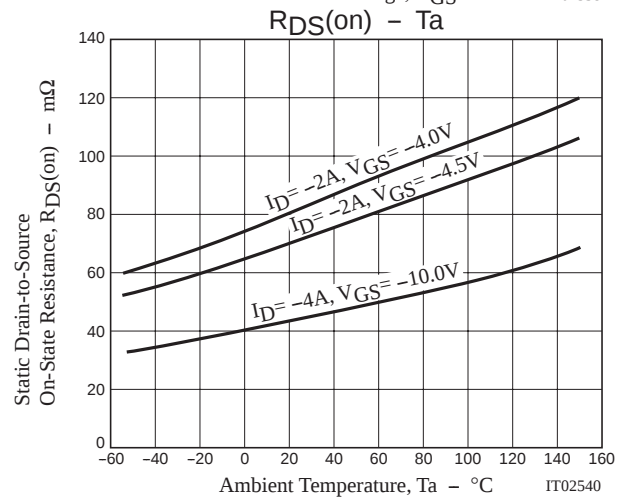
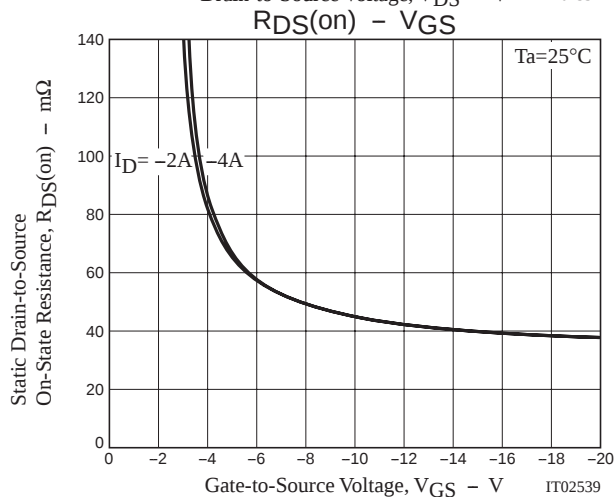
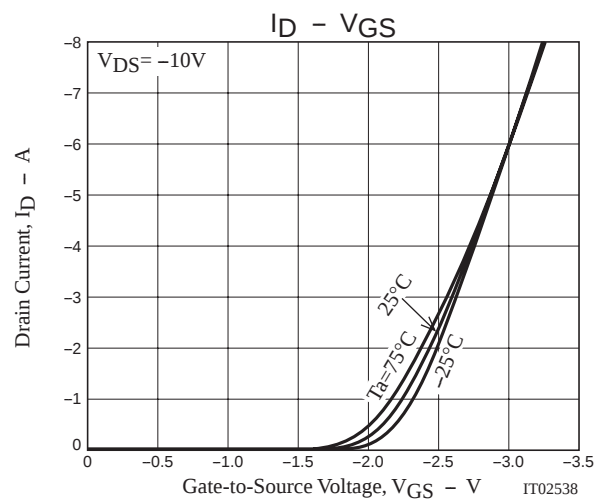
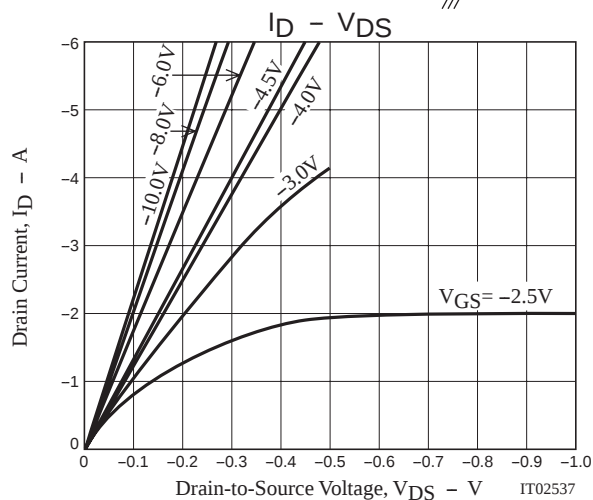
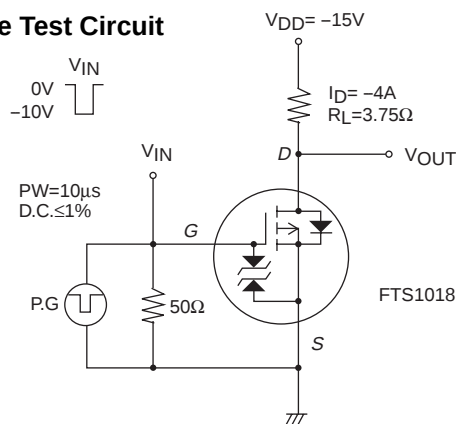
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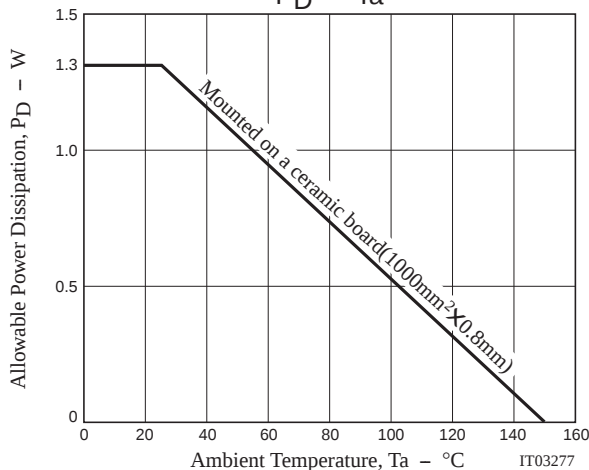
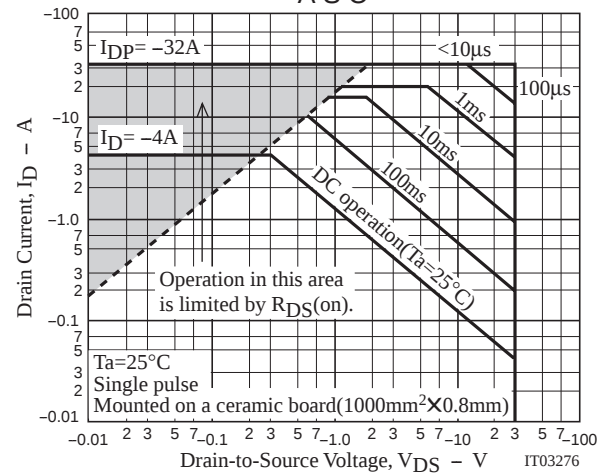
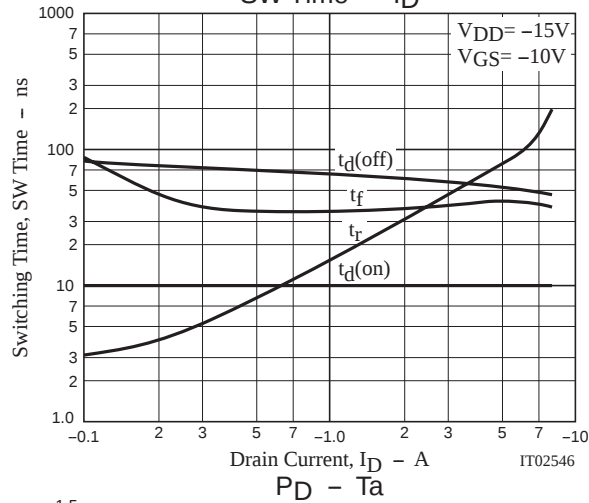
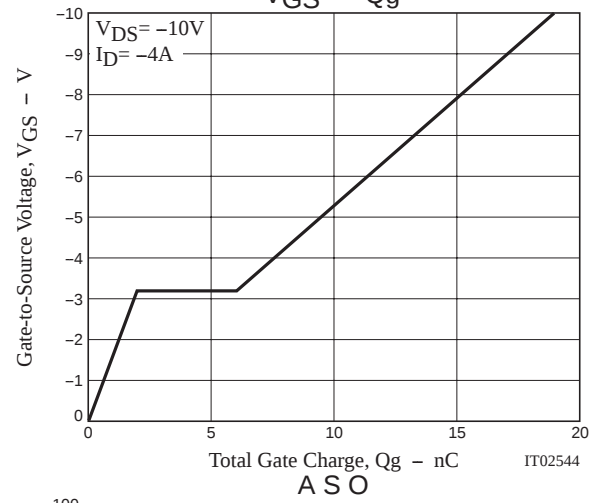
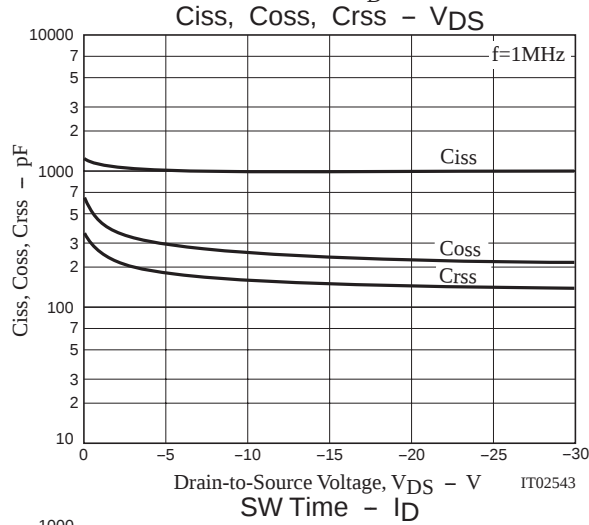
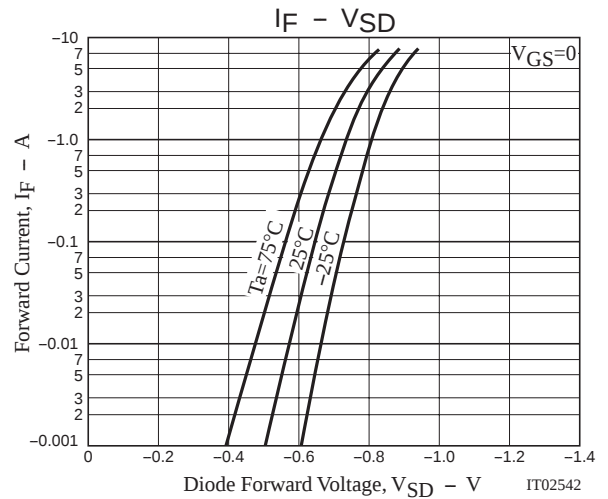
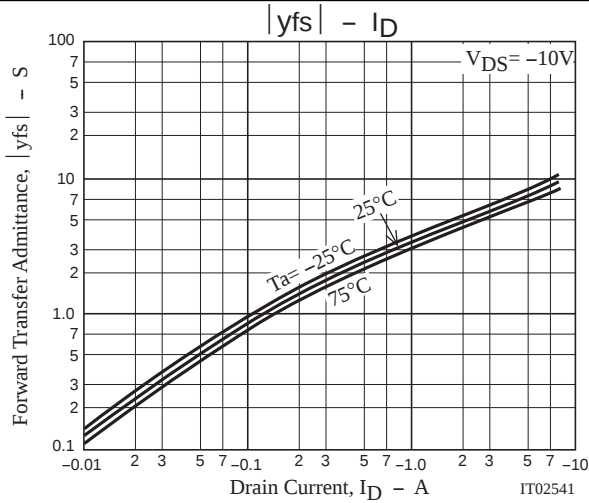
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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Static Drain-to-Source On-State Resistance	R _{DS(on)} 1	I _D =-4A, V _{GS} =-10V		46	60	mΩ
	R _{DS(on)} 2	I _D =-2A, V _{GS} =-4.5V		76	107	mΩ
	R _{DS(on)} 3	I _D =-2A, V _{GS} =-4V		81	114	mΩ
Input Capacitance	C _{iss}	V _{DS} =-10V, f=1MHz		1000		pF
Output Capacitance	C _{oss}	V _{DS} =-10V, f=1MHz		250		pF
Reverse Transfer Capacitance	C _{rss}	V _{DS} =-10V, f=1MHz		160		pF
Turn-ON Delay Time	t _{d(on)}	See specified Test Circuit		10		ns
Rise Time	t _r	See specified Test Circuit		60		ns
Turn-OFF Delay Time	t _{d(off)}	See specified Test Circuit		55		ns
Fall Time	t _f	See specified Test Circuit		40		ns
Total Gate Charge	Q _g	V _{DS} =-10V, V _{GS} =-10V, I _D =-4A		19		nC
Gate-to-Source Charge	Q _{gs}	V _{DS} =-10V, V _{GS} =-10V, I _D =-4A		2		nC
Gate-to-Drain "Miller" Charge	Q _{gd}	V _{DS} =-10V, V _{GS} =-10V, I _D =-4A		4		nC
Diode Forward Voltage	V _{SD}	I _S =-4A, V _{GS} =0		-0.83	-1.5	V

Switching Time Test Circuit





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