

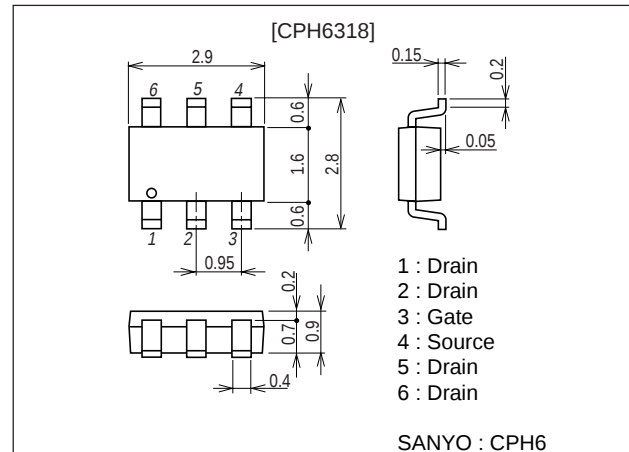
SANYO**CPH6318****High-Speed Switching Applications****Features**

- Low ON-resistance.
- High-speed switching.
- 1.8V drive.

Package Dimensions

unit : mm

2151A

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

Parameter	Symbol	Conditions	Ratings	Unit
Drain-to-Source Voltage	V_{DS}		-12	V
Gate-to-Source Voltage	V_{GS}		±8	V
Drain Current (DC)	I_D		-6	A
Drain Current (Pulse)	I_{DP}	PW≤10μs, duty cycle≤1%	-24	A
Allowable Power Dissipation	P_D	Mounted on a ceramic board (900mm²×0.8mm)	1.6	W
		Mounted on a FR4 board PW≤5s	2.0	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	$V_{(BR)DSS}$	$I_D = -1mA, V_{GS} = 0$	-12			V
Zero-Gate Voltage Drain Current	I_{DSS}	$V_{DS} = -12V, V_{GS} = 0$			-10	μA
Gate-to-Source Leakage Current	I_{GSS}	$V_{GS} = \pm 6.4V, V_{DS} = 0$			±10	μA
Cutoff Voltage	$V_{GS(off)}$	$V_{DS} = -6V, I_D = -1mA$	-0.3		-1.0	V
Forward Transfer Admittance	$ y_{fs} $	$V_{DS} = -6V, I_D = -3A$	7.7	11		S
Static Drain-to-Source On-State Resistance	$R_{DS(on)1}$	$I_D = -3A, V_{GS} = -4.5V$		26	34	mΩ
	$R_{DS(on)2}$	$I_D = -1.5A, V_{GS} = -2.5V$		36	50	mΩ
	$R_{DS(on)3}$	$I_D = -0.5A, V_{GS} = -1.8V$		50	75	mΩ

Marking : JU

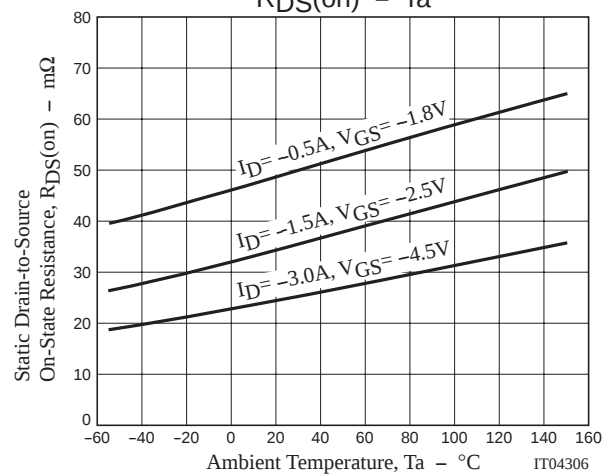
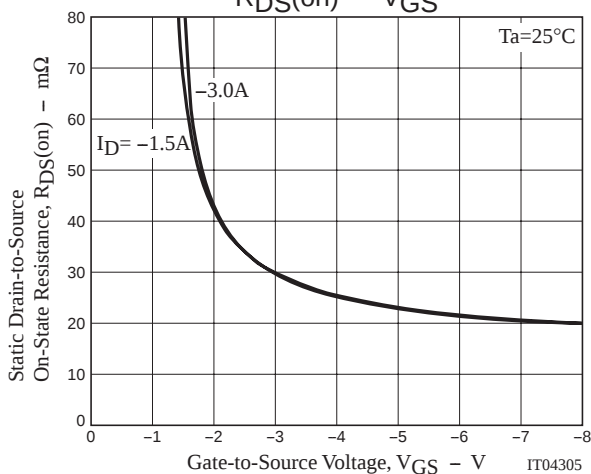
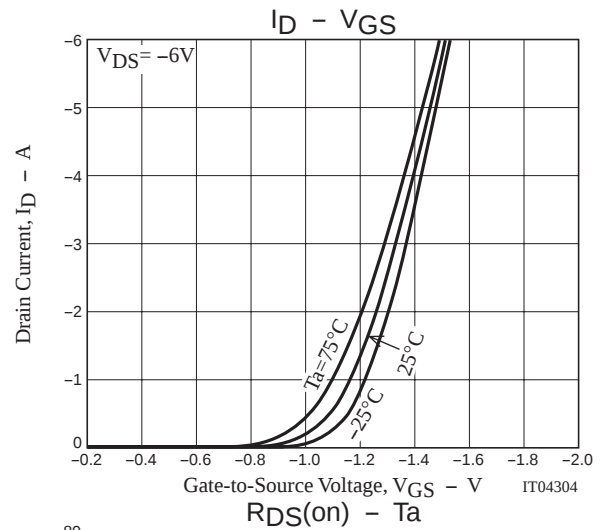
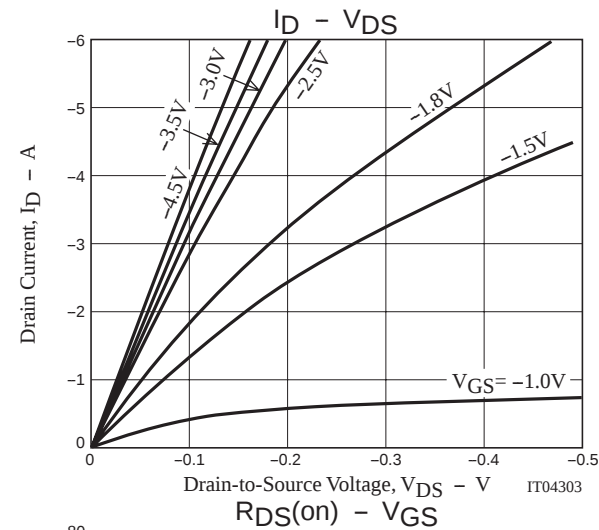
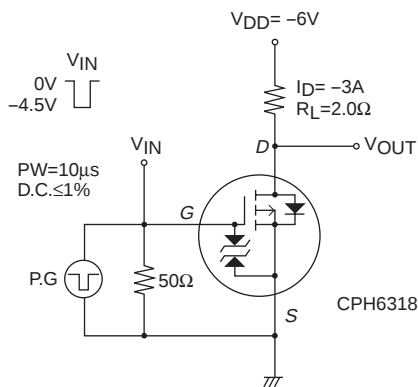
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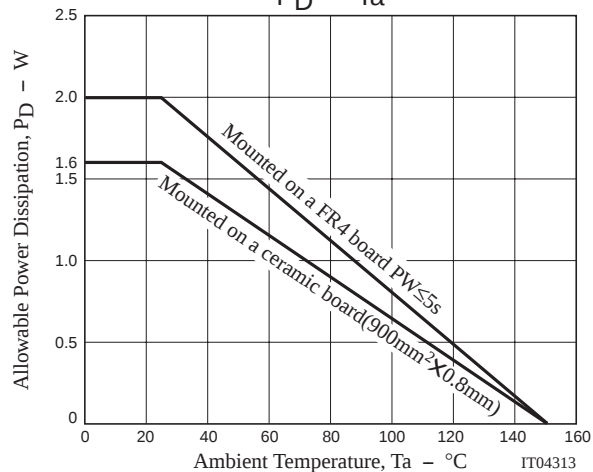
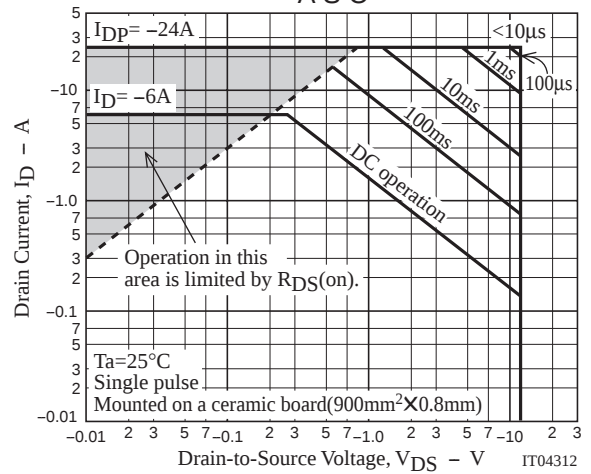
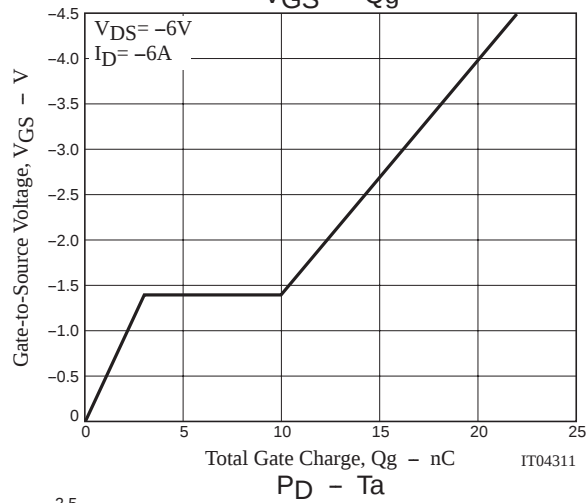
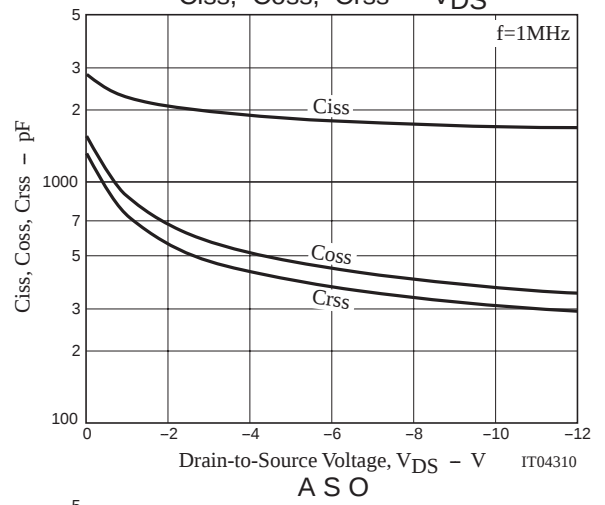
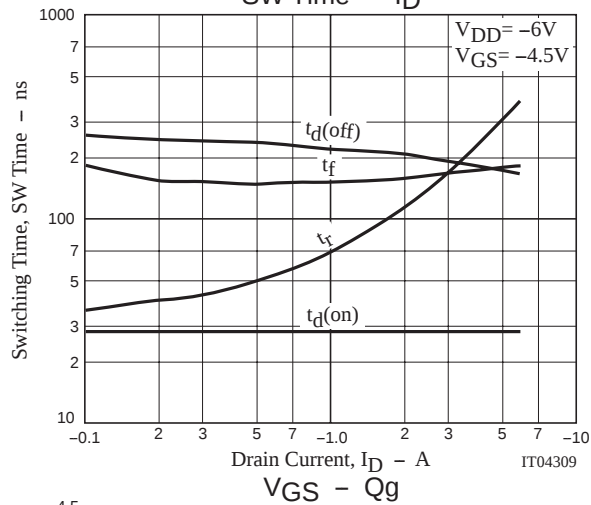
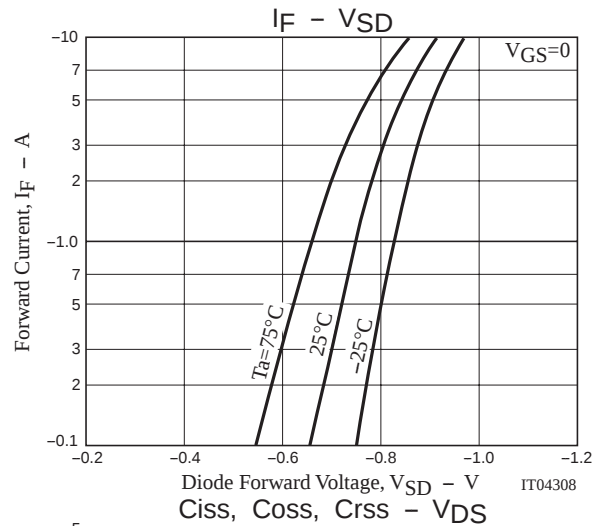
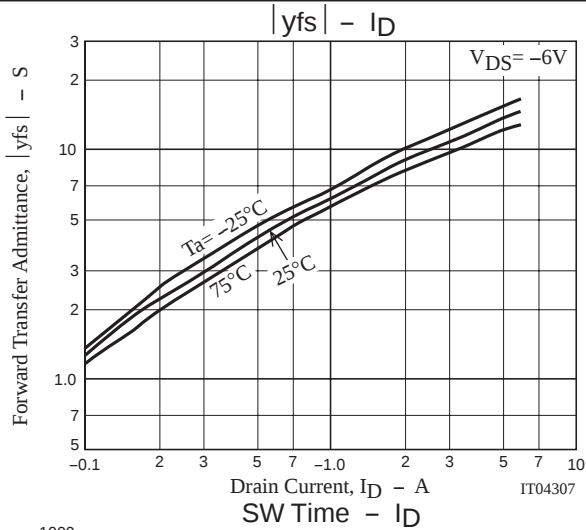
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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Input Capacitance	Ciss	$V_{DS} = -6V, f = 1MHz$		1900		pF
Output Capacitance	Coss	$V_{DS} = -6V, f = 1MHz$		440		pF
Reverse Transfer Capacitance	Crss	$V_{DS} = -6V, f = 1MHz$		360		pF
Turn-ON Delay Time	$t_d(on)$	See specified Test Circuit.		28		ns
Rise Time	t_r	See specified Test Circuit.		170		ns
Turn-OFF Delay Time	$t_d(off)$	See specified Test Circuit.		190		ns
Fall Time	t_f	See specified Test Circuit.		170		ns
Total Gate Charge	Qg	$V_{DS} = -6V, V_{GS} = -4.5V, I_D = -6A$		22		nC
Gate-to-Source Charge	Qgs	$V_{DS} = -6V, V_{GS} = -4.5V, I_D = -6A$		3.0		nC
Gate-to-Drain "Miller" Charge	Qgd	$V_{DS} = -6V, V_{GS} = -4.5V, I_D = -6A$		7.0		nC
Diode Forward Voltage	V_{SD}	$I_S = -6A, V_{GS} = 0$		-0.86	-1.5	V

Switching Time Test Circuit





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