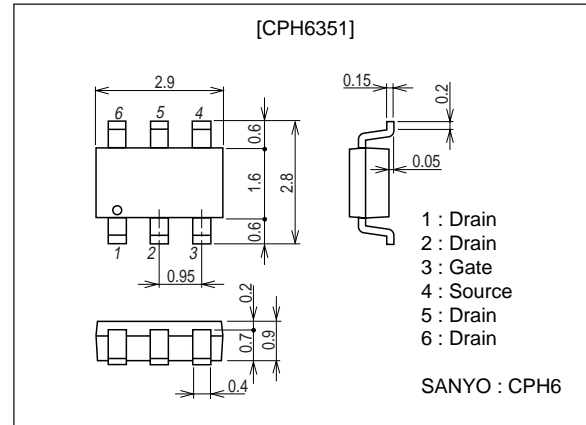


**CPH6351****Ultrahigh-Speed Switching Applications****Features**

- Low ON-resistance.
- Ultrahigh-speed switching.
- 2.5V drive.

Package Dimensionsunit : mm
2151A**Specifications****Absolute Maximum Ratings** at Ta=25°C

Parameter	Symbol	Conditions	Ratings	Unit
Drain-to-Source Voltage	V _{DSS}		-20	V
Gate-to-Source Voltage	V _{GSS}		±10	V
Drain Current (DC)	I _D		-3	A
Drain Current (Pulse)	I _{DP}	PW≤10μs, duty cycle≤1%	-12	A
Allowable Power Dissipation	P _D	Mounted on a ceramic board (900mm²×0.8mm)	1.6	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	-20			V
Zero-Gate Voltage Drain Current	I _{DSS}	V _{DS} =-20V, V _{GS} =0			-10	μA
Gate-to-Source Leakage Current	I _{GSS}	V _{GS} =±8V, V _{DS} =0			±10	μA
Cutoff Voltage	V _{GS(off)}	V _{DS} =-10V, I _D =-1mA	-0.4		-1.4	V
Forward Transfer Admittance	y _{fs}	V _{DS} =-10V, I _D =-1.5A	3.3	4.8		S
Static Drain-to-Source On-State Resistance	R _{DS(on)1}	I _D =-1.5A, V _{GS} =-4V		90	120	mΩ
	R _{DS(on)2}	I _D =-0.5A, V _{GS} =-2.5V		140	200	mΩ

Marking : JE

Continued on next page.

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■ SANYO assumes no responsibility for equipment failures that result from using products at values that exceed, even momentarily, rated values (such as maximum ratings, operating condition ranges, or other parameters) listed in products specifications of any and all SANYO products described or contained herein.

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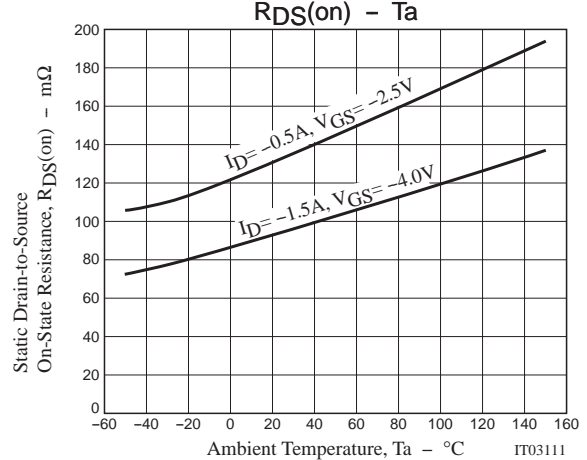
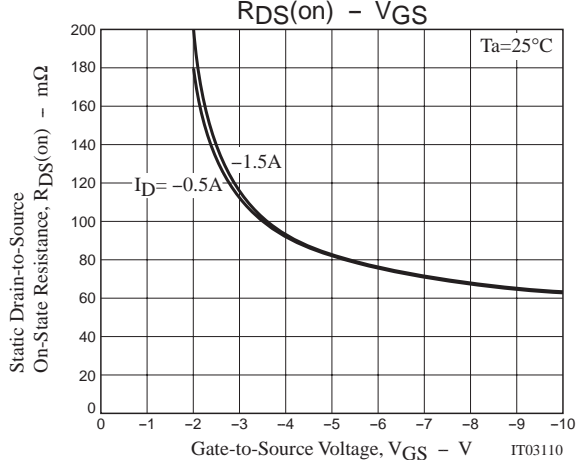
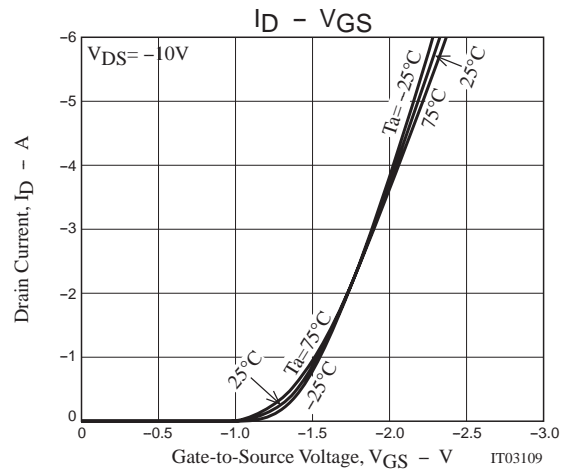
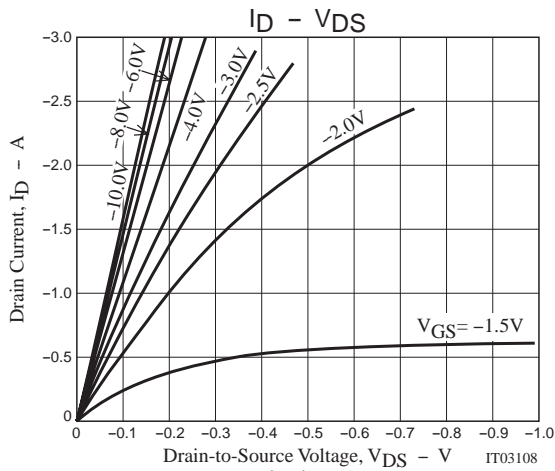
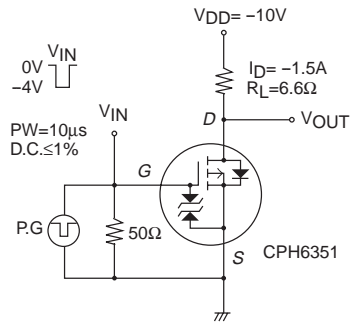
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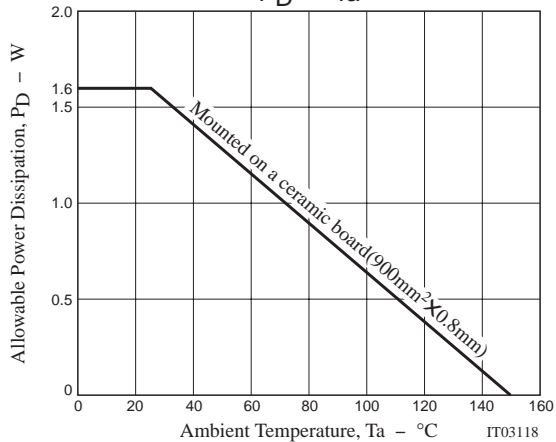
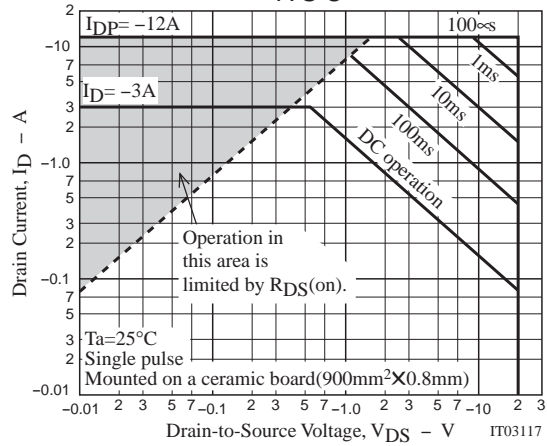
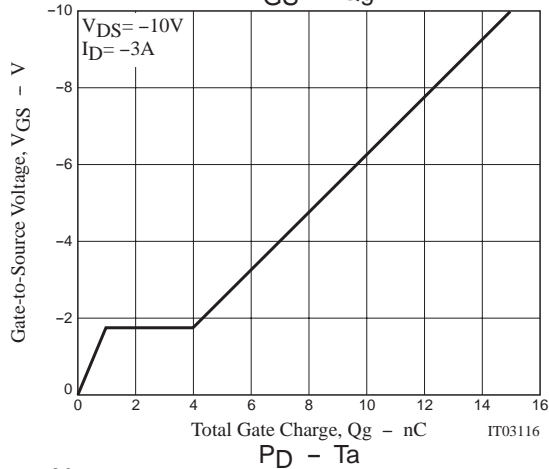
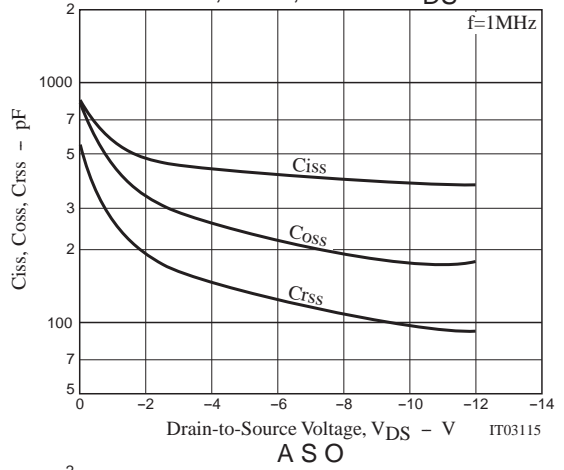
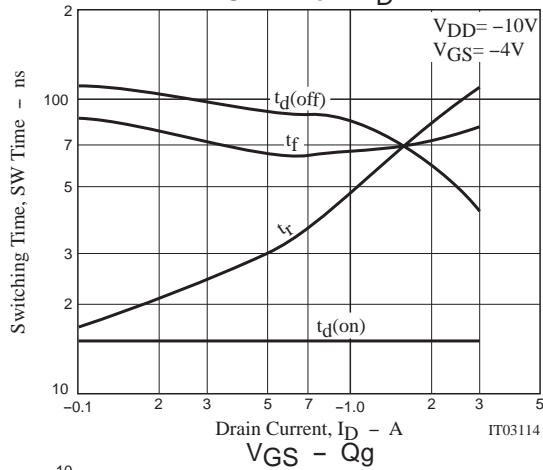
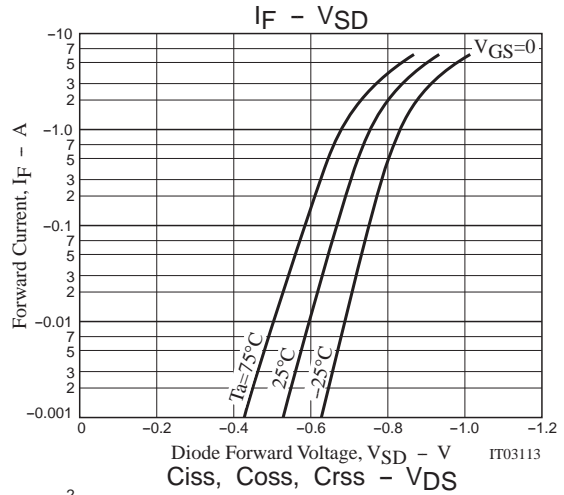
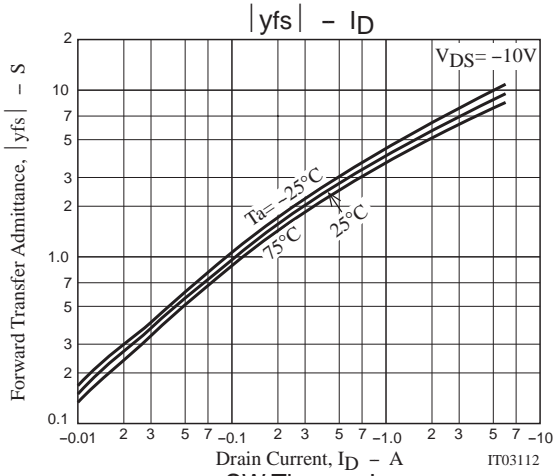
CPH6351

Continued from preceding page.

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Input Capacitance	C_{iss}	$V_{DS} = -10V, f = 1MHz$		400		pF
Output Capacitance	C_{oss}	$V_{DS} = -10V, f = 1MHz$		200		pF
Reverse Transfer Capacitance	C_{rss}	$V_{DS} = -10V, f = 1MHz$		100		pF
Turn-ON Delay Time	$t_d(on)$	See specified Test Circuit		15		ns
Rise Time	t_r	See specified Test Circuit		65		ns
Turn-OFF Delay Time	$t_d(off)$	See specified Test Circuit		75		ns
Fall Time	t_f	See specified Test Circuit		70		ns
Total Gate Charge	Q_g	$V_{DS} = -10V, V_{GS} = -10V, I_D = -3A$		15		nC
Gate-to-Source Charge	Q_{gs}	$V_{DS} = -10V, V_{GS} = -10V, I_D = -3A$		1		nC
Gate-to-Drain "Miller" Charge	Q_{gd}	$V_{DS} = -10V, V_{GS} = -10V, I_D = -3A$		3		nC
Diode Forward Voltage	V_{SD}	$I_S = -3A, V_{GS} = 0$		-0.85	-1.5	V

Switching Time Test Circuit





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