



2SJ569LS

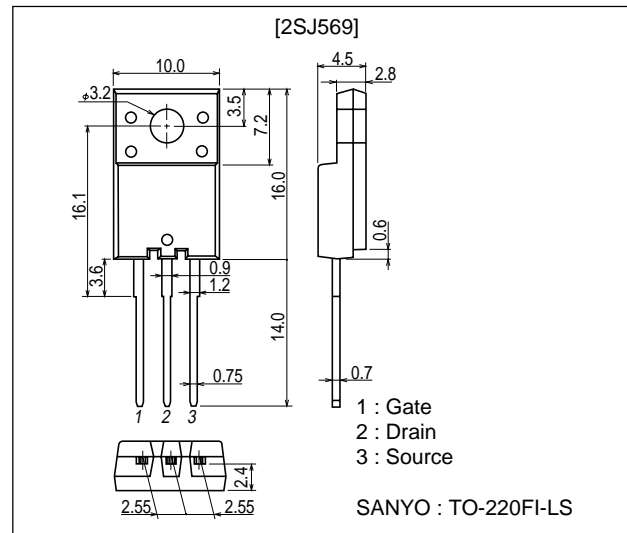
Ultrahigh-Speed Switching Applications

Features

- Low ON-resistance.
- Ultrahigh-speed switching.

Package Dimensions

unit : mm
2078B



Specifications

Absolute Maximum Ratings at $T_a=25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings	Unit
Drain-to-Source Voltage	V_{DS}		-300	V
Gate-to-Source Voltage	V_{GS}		± 30	V
Drain Current (DC)	I_D		-5	A
Drain Current (Pulse)	I_{DP}	$PW \leq 10\mu\text{s}$, duty cycle $\leq 1\%$	-20	A
Allowable Power Dissipation	P_D		2.0	W
		$T_c=25^\circ\text{C}$	30	W
Channel Temperature	T_{ch}		150	$^\circ\text{C}$
Storage Temperature	T_{stg}		-55 to +150	$^\circ\text{C}$

Electrical Characteristics at $T_a=25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Drain-to-Source Breakdown Voltage	$V_{(BR)DSS}$	$I_D=-1\text{mA}$, $V_{GS}=0$	-300			V
Gate-to-Source Breakdown Voltage	$V_{(BR)GSS}$	$I_G=\pm 100\mu\text{A}$, $V_{DS}=0$	± 30			V
Zero-Gate Voltage Drain Current	I_{DSS}	$V_{DS}=-300\text{V}$, $V_{GS}=0$			-100	μA
Gate-to-Source Leakage Current	I_{GSS}	$V_{GS}=\pm 25\text{V}$, $V_{DS}=0$			± 10	μA
Cutoff Voltage	$V_{GS(off)}$	$V_{DS}=-10\text{V}$, $I_D=-1\text{mA}$	-1.5		-2.5	V

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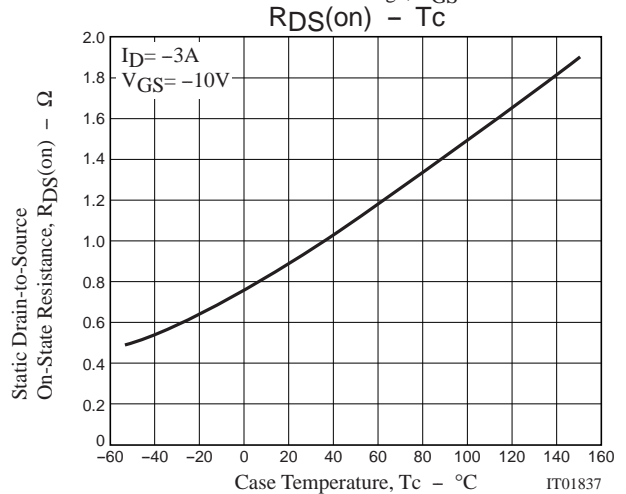
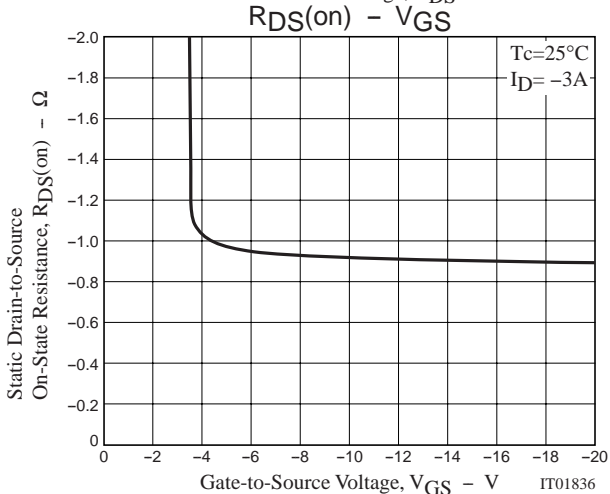
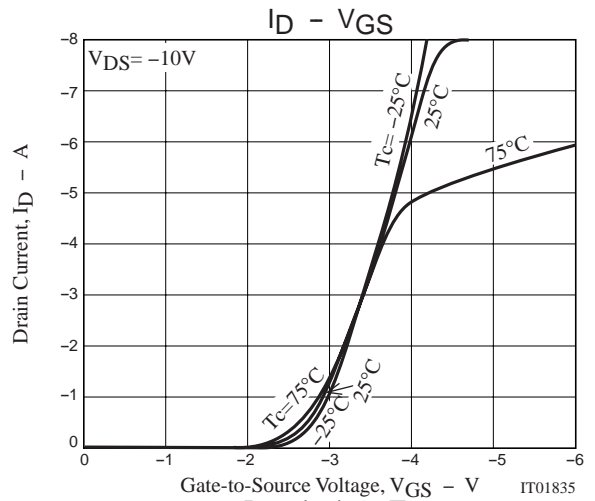
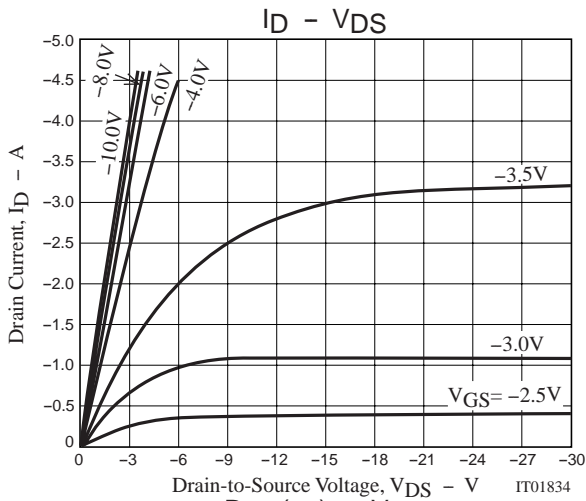
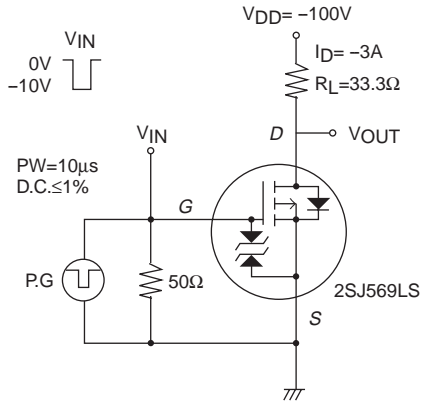
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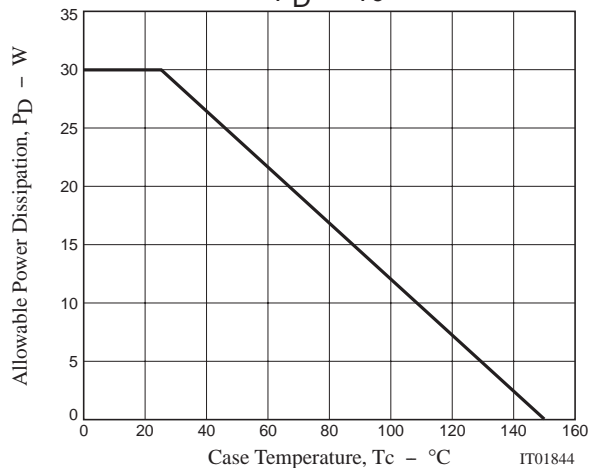
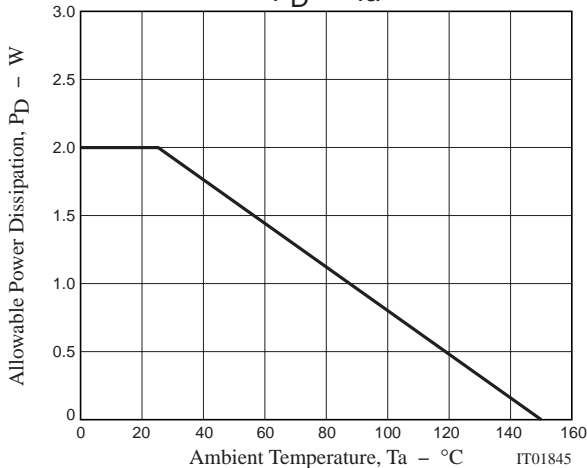
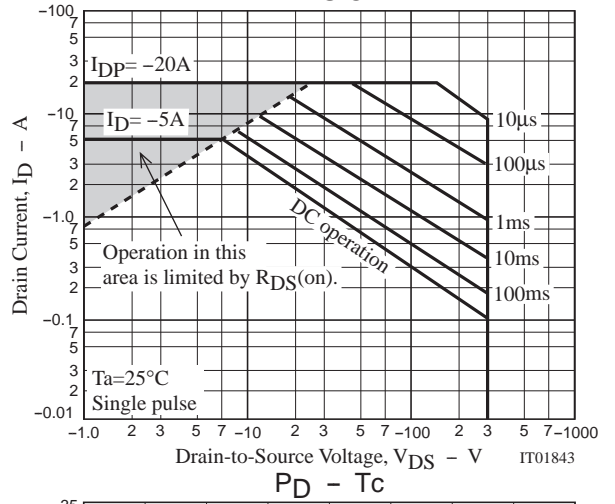
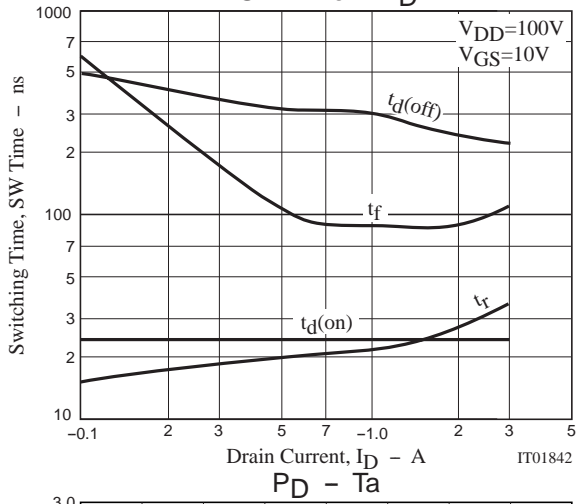
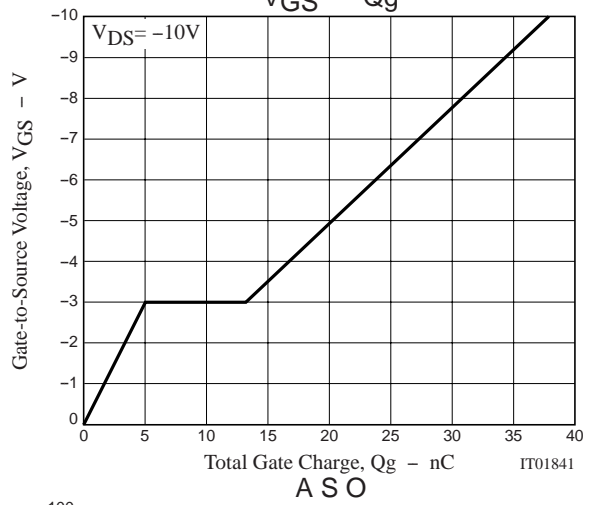
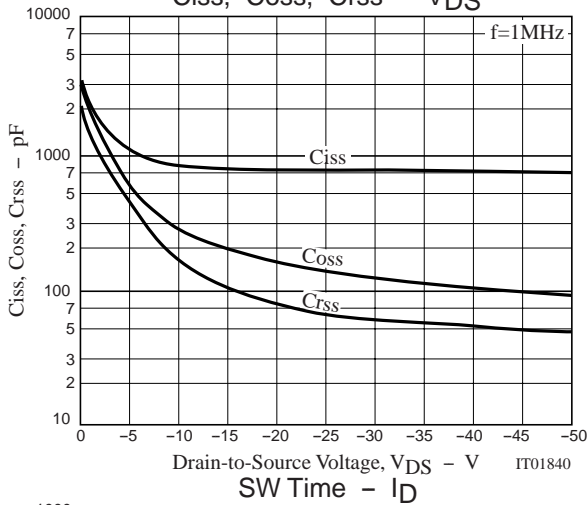
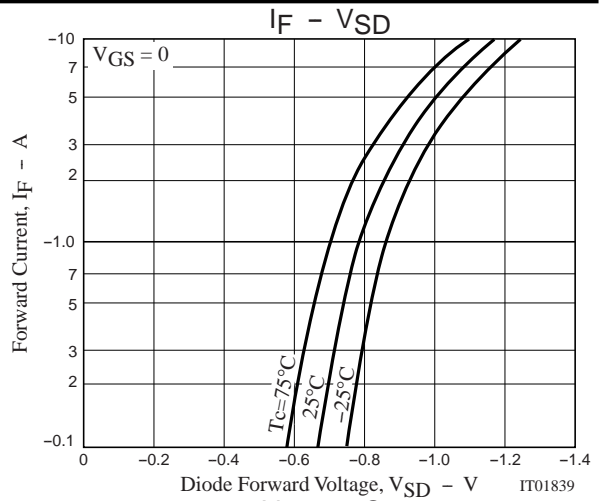
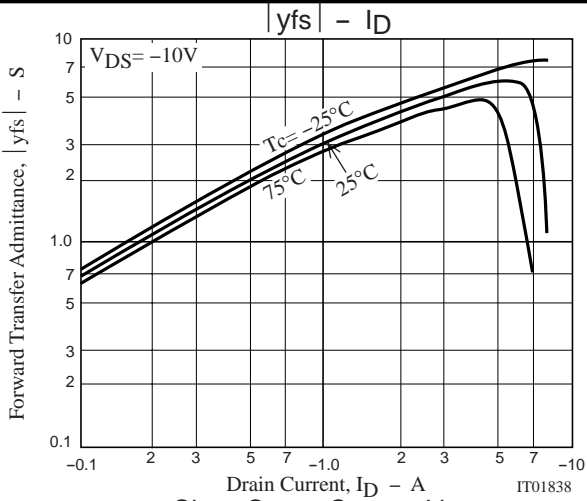
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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Forward Transfer Admittance	$ y_{fs} $	$V_{DS}=-10V, I_D=-3A$	3	5		S
Static Drain-to-Source On-State Resistance	$R_{DS(on)}$	$I_D=-3A, V_{GS}=-10V$		0.95	1.25	Ω
Input Capacitance	C_{iss}	$V_{DS}=-20V, f=1MHz$		750		pF
Output Capacitance	C_{oss}	$V_{DS}=-20V, f=1MHz$		170		pF
Reverse Transfer Capacitance	C_{rss}	$V_{DS}=-20V, f=1MHz$		76		pF
Turn-ON Delay Time	$t_d(on)$	See specified Test Circuit		24		ns
Rise Time	t_r	See specified Test Circuit		37		ns
Turn-OFF Delay Time	$t_d(off)$	See specified Test Circuit		230		ns
Fall Time	t_f	See specified Test Circuit		110		ns
Diode Forward Voltage	V_{SD}	$I_S=-5A, V_{GS}=0$		-1.0	-1.5	V

Switching Time Test Circuit



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