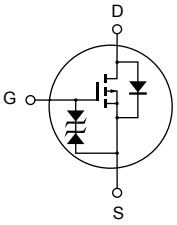
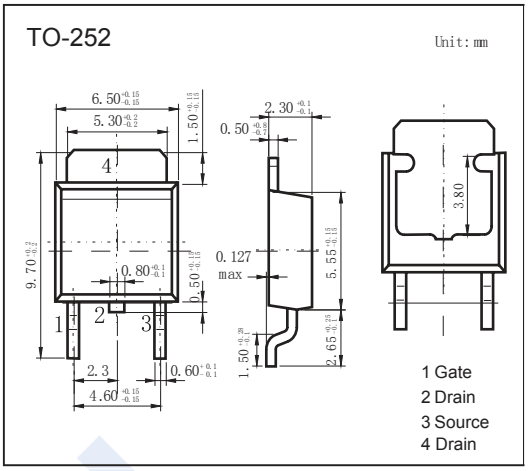
P-Channel MOSFET
2SJ130S

■ Features

- V_{DS} (V) =-300V
- I_D =-1 A (V_{GS} =-10V)
- $R_{DS(ON)}$ < 8.5Ω (V_{GS} =-10V)
- High speed switching
- Low drive current





■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	-300	V
Gate-Source Voltage	V_{GS}	±20	
Continuous Drain Current	I_D	-1	A
Pulsed Drain Current	I_{DM}	-2	
Body to Drain Diode Reverse Drain Current	I_{DR}	-1	
Power Dissipation Tc = 25℃	P_D	20	W
Junction Temperature	T_J	150	℃
Junction Storage Temperature Range	T_{stg}	-55 to 150	

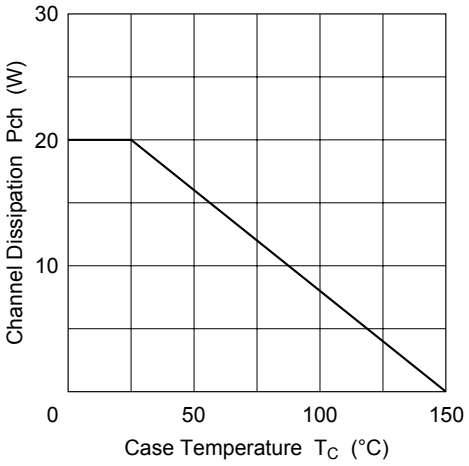
■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	V_{DSS}	I_D=-10 mA, V_{GS}=0V	-300			V
Gate to Source Breakdown Voltage	V_{GSS}	I_G=±100μA, V_{DS}=0V	±20			
Zero Gate Voltage Drain Current	I_{DSS}	V_{DS}=-240V, V_{GS}=0V			-100	uA
Gate-Body leakage current	I_{GSS}	V_{DS}=0V, V_{GS}=±16V			±10	uA
Gate to Source Cutoff Voltage	$V_{GS(off)}$	V_{GS}=-10V I_D=-1mA	-2		-4	V
Static Drain-Source On-Resistance	$R_{DS(ON)}$	V_{GS}=-10V, I_D=-0.5A			8.5	Ω
Forward Transconductance	g_{FS}	V_{DS}=-20V, I_D=-0.5A	0.25	0.4		S
Input Capacitance	C_{iss}	V_{GS}=0V, V_{DS}=-10V, f=1MHz		235		pF
Output Capacitance	C_{oss}			65		
Reverse Transfer Capacitance	C_{rss}			16		
Turn-On DelayTime	$t_{d(on)}$	V_{GS}=-10V, I_D=-0.5A, R_L=60Ω		10		ns
Turn-On Rise Time	t_r			25		
Turn-Off DelayTime	$t_{d(off)}$			35		
Turn-Off Fall Time	t_f			45		
Body Diode Reverse Recovery Time	t_{rr}	I_F=-1A, V_{GS}=0,dI/dt=50A/μs		200		
Diode Forward Voltage	V_{SD}	I_S=-1A,V_{GS}=0V		-0.9		V

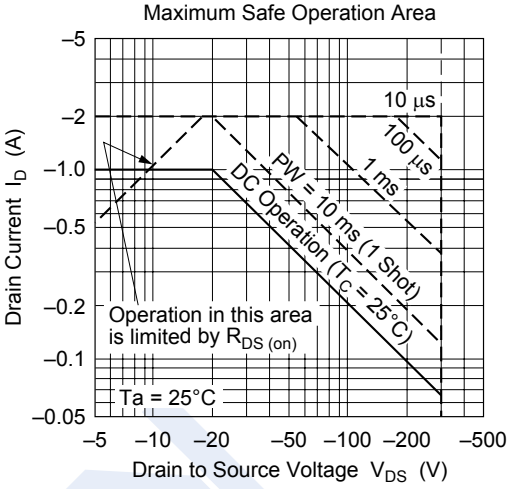
P-Channel MOSFET
2SJ130S

■ Typical Characterisitics

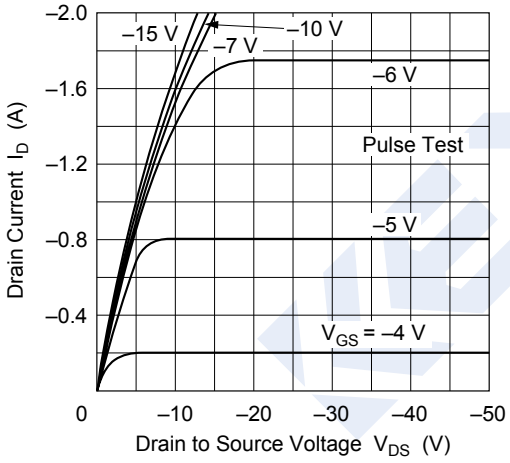
Power vs. Temperature Derating



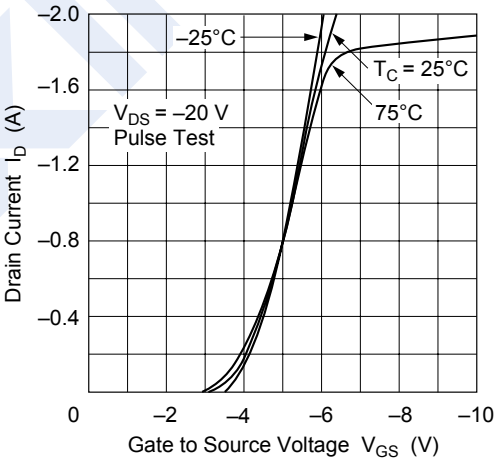
Maximum Safe Operation Area



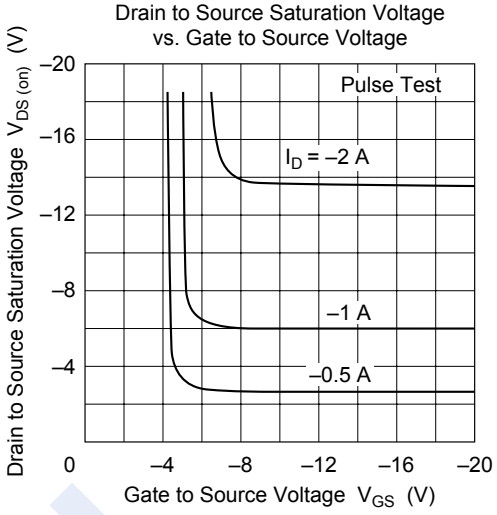
Typical Output Characteristics



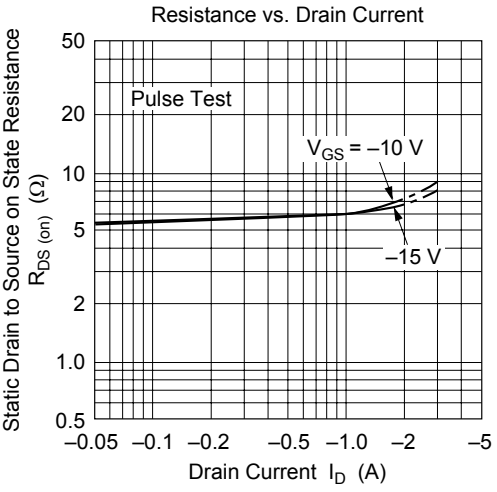
Typical Transfer Characteristics



Drain to Source Saturation Voltage vs. Gate to Source Voltage



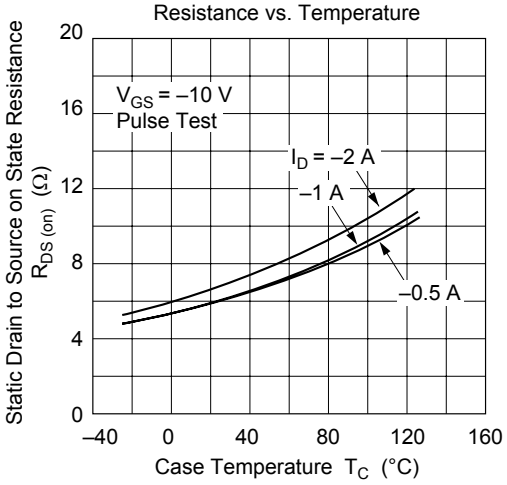
Static Drain to Source on State Resistance vs. Drain Current



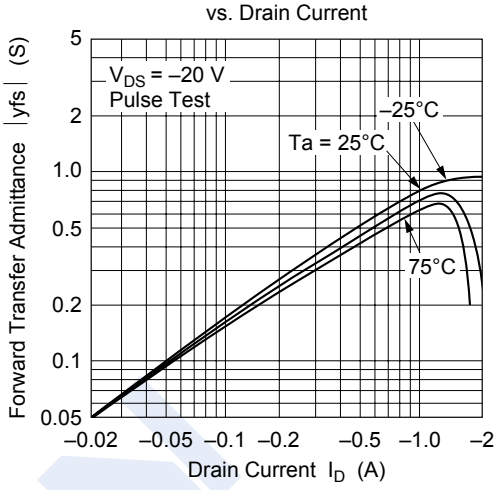
P-Channel MOSFET
2SJ130S

■ Typical Characterisitics

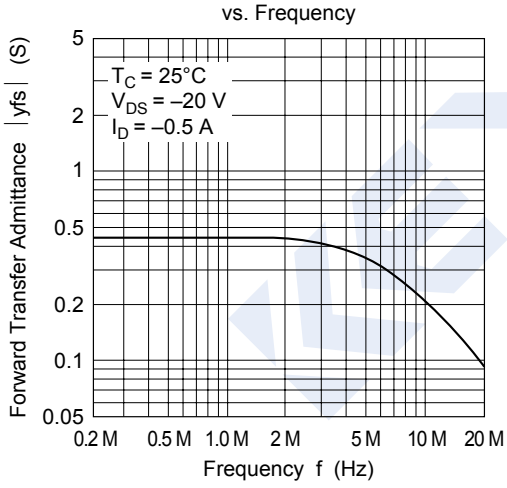
Static Drain to Source on State Resistance vs. Temperature



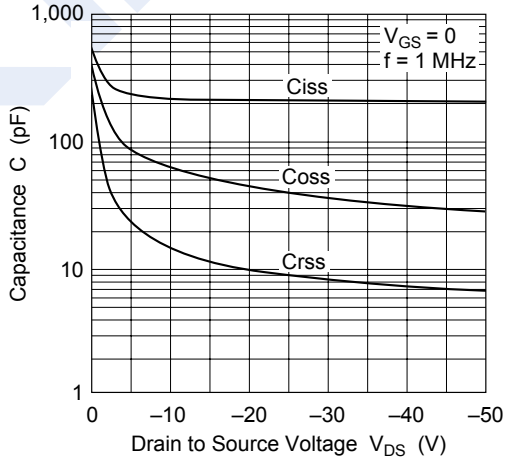
Forward Transfer Admittance vs. Drain Current



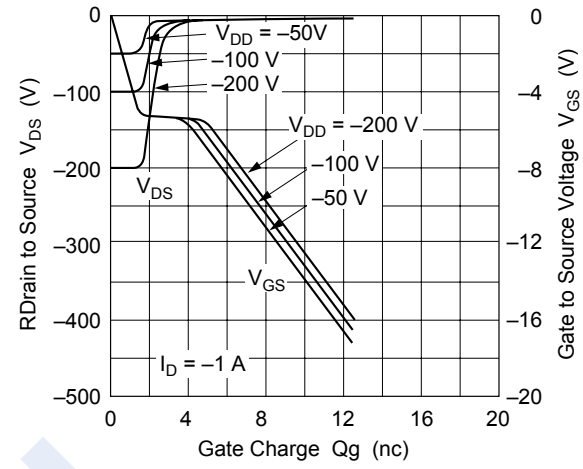
Forward Transfer Admittance vs. Frequency



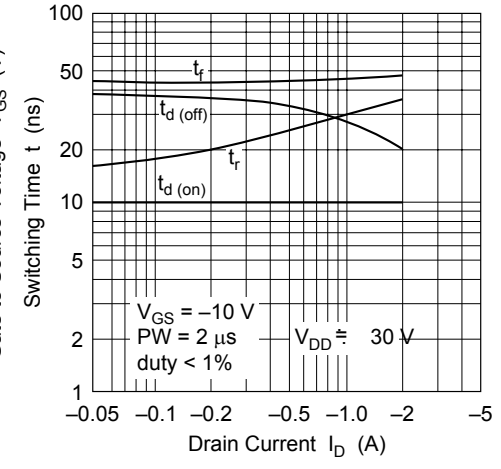
Typical Capacitance vs. Drain to Source Voltage



Dynamic Input Characteristics



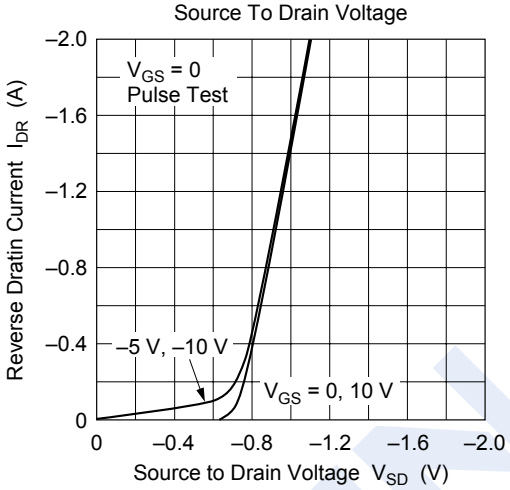
Switching Characteristics



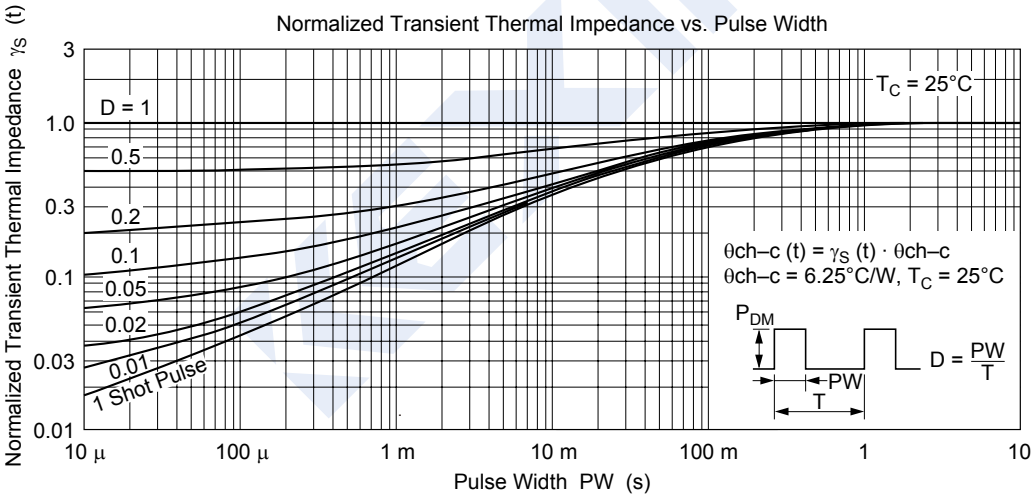
P-Channel MOSFET
2SJ130S

■ Typical Characterisitics

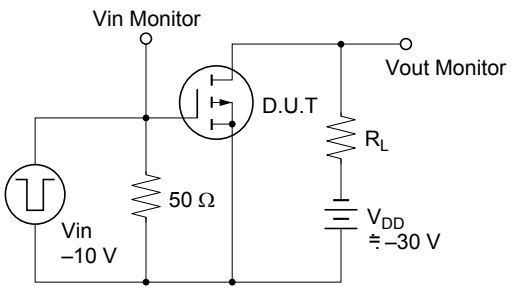
Reverse Drain Current vs.
Source To Drain Voltage



Normalized Transient Thermal Impedance vs. Pulse Width



Switching Time Test Circuit



Waveforms