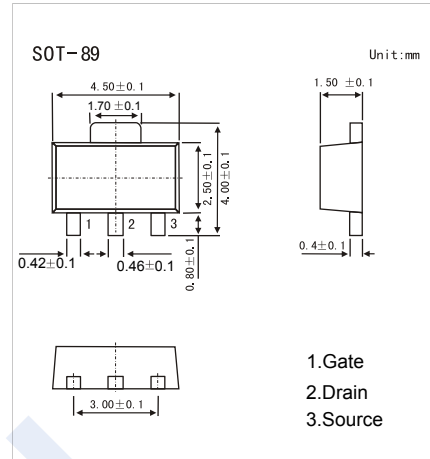


P-Channel MOSFET

2SJ179

Features

- $V_{DS} (V) = -30V$
- $I_D = -1.5 A (V_{GS} = -10V)$
- $R_{DS(ON)} < 1 \Omega (V_{GS} = -10V)$
- $R_{DS(ON)} < 1.5 \Omega (V_{GS} = -4V)$



Absolute Maximum Ratings $T_a = 25^\circ C$

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	-30	V
Gate-Source Voltage	V_{GS}	± 20	
Continuous Drain Current	I_D	-1.5	A
Pulsed Drain Current (Note.1)	I_{DM}	-3	
Power Dissipation	P_D	2	W
Junction Temperature	T_J	150	$^\circ C$
Junction Storage Temperature Range	T_{stg}	-55 to 150	

Note.1: $PW \leq 10ms, Duty Cycle \leq 50\%$

Electrical Characteristics $T_a = 25^\circ C$

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	V_{DSS}	$I_D = -250 \mu A, V_{GS} = 0V$	-30			V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS} = -30V, V_{GS} = 0V$			-10	μA
Gate-Body leakage current	I_{GSS}	$V_{DS} = 0V, V_{GS} = \pm 20V$			± 100	nA
Gate Cut off Voltage	$V_{GS(off)}$	$V_{DS} = -10V, I_D = -1mA$	-1		-3	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	$V_{GS} = -4V, I_D = -500mA$			1.5	Ω
		$V_{GS} = -10V, I_D = -500mA$			1	
Forward Transconductance	g_{FS}	$V_{DS} = -10V, I_D = -500mA$	0.4			S
Input Capacitance	C_{iss}	$V_{GS} = 0V, V_{DS} = -10V, f = 1MHz$		210		pF
Output Capacitance	C_{oss}			130		
Reverse Transfer Capacitance	C_{rss}			3		
Turn-On Delay Time	$t_{d(on)}$	$V_{GS(on)} = -10V, V_{DS} = -25V, I_D = -0.5A, R_L = 50 \Omega, R_{GEN} = 10 \Omega$		35		ns
Turn-On Rise Time	t_r			70		
Turn-Off Delay Time	$t_{d(off)}$			380		
Turn-Off Fall Time	t_f			200		

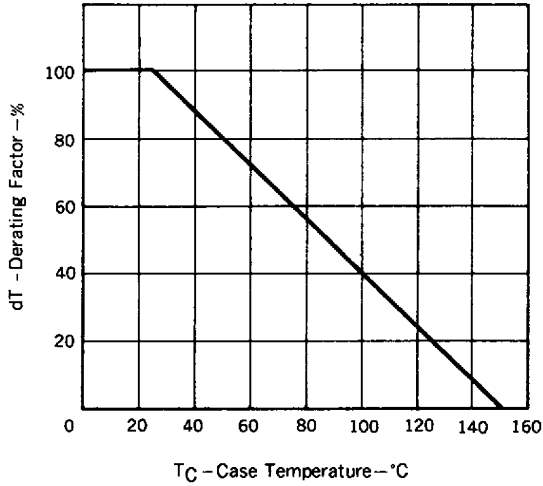
Marking

Marking	PA
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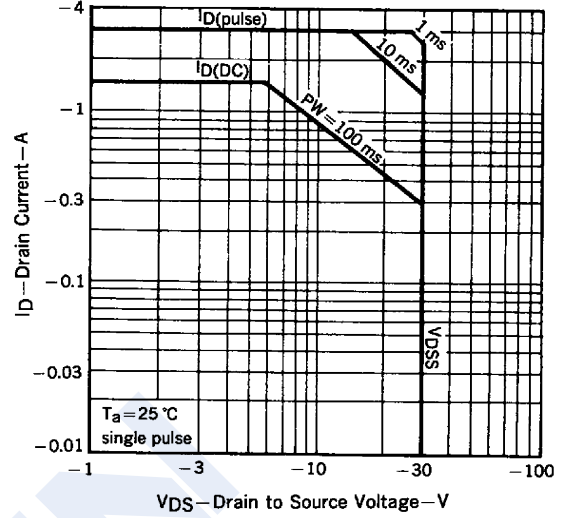
P-Channel MOSFET 2SJ179

■ Typical Characteristics

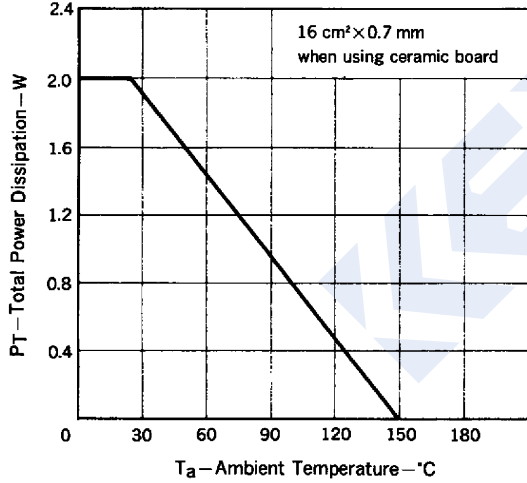
DERATING FACTOR OF FORWARD BIAS SAFE OPERATING AREA



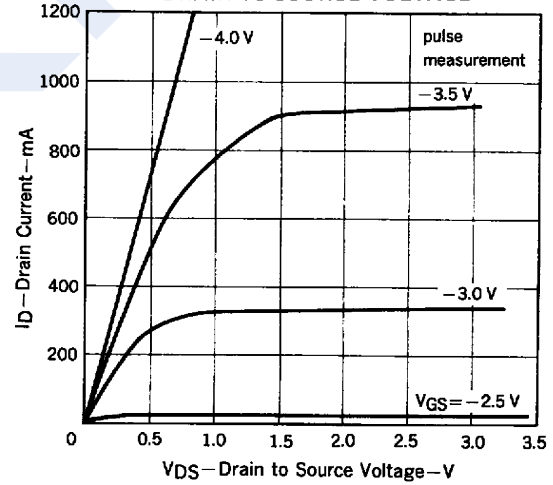
FORWARD BIAS SAFE OPERATING AREA



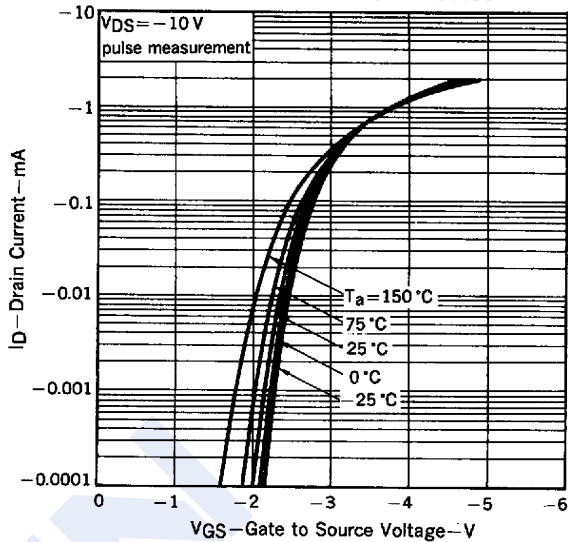
TOTAL POWER DISSIPATION vs. AMBIENT TEMPERATURE



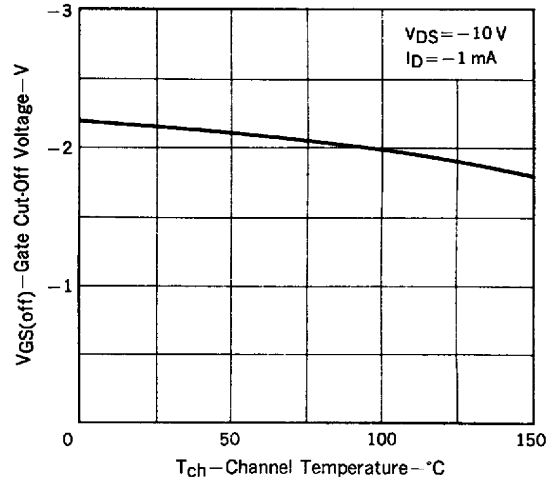
DRAIN CURRENT vs. DRAIN TO SOURCE VOLTAGE



TRANSFER CHARACTERISTICS

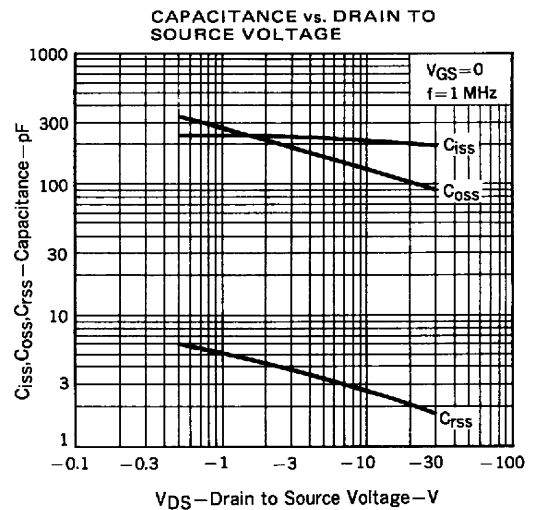
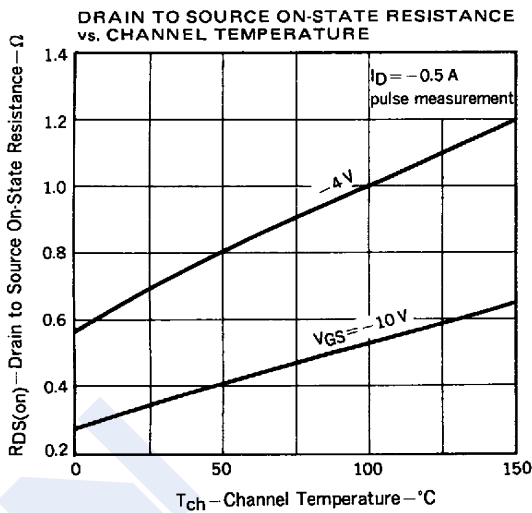
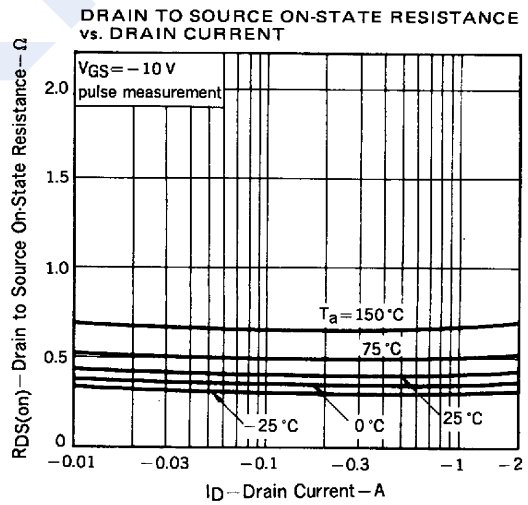
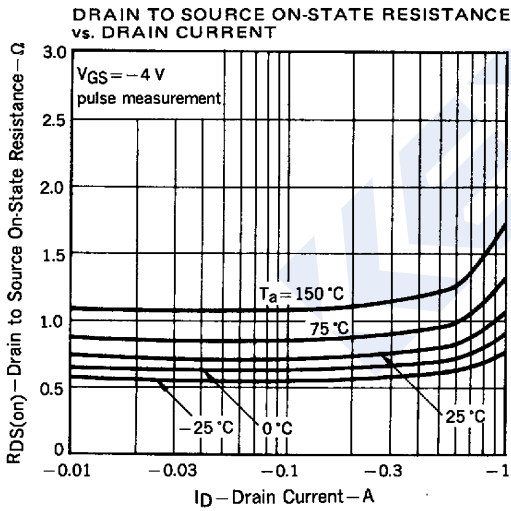
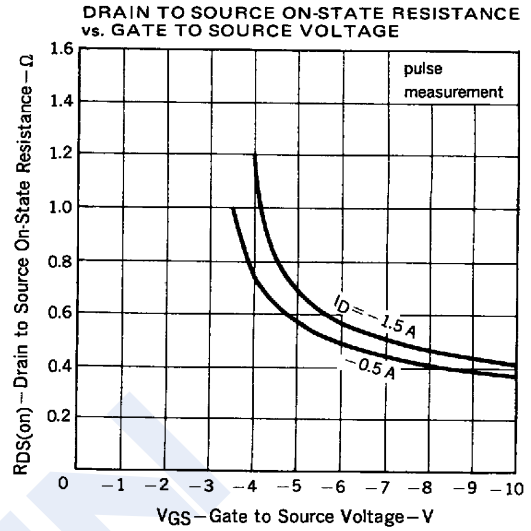
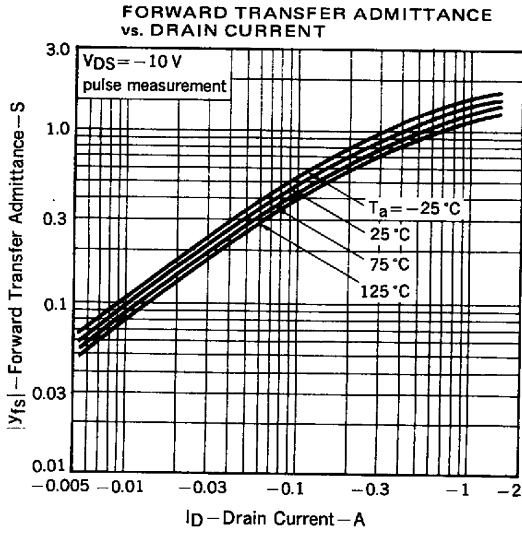


GATE TO SOURCE CUTOFF VOLTAGE vs. CHANNEL TEMPERATURE



P-Channel MOSFET 2SJ179

■ Typical Characteristics



P-Channel MOSFET

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■ Typical Characteristics

