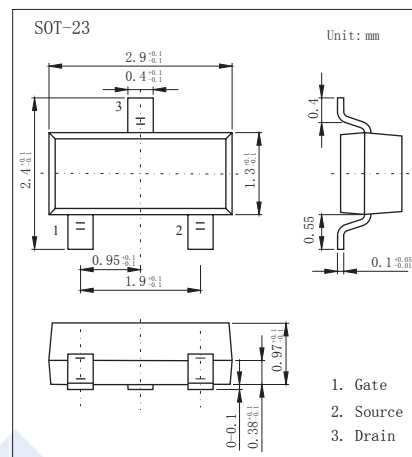
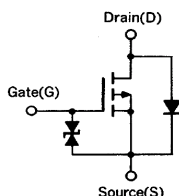


P-Channel MOSFET

2SJ166

■ Features

- $V_{DS} (V) = -50V$
- $I_D = -0.1 A$ ($V_{GS} = -10V$)
- $R_{DS(ON)} < 50 \Omega$ ($V_{GS} = -4V$)
- Complementary to 2SK1132



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

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	-50	V
Gate-Source Voltage	V_{GS}	± 7	
Continuous Drain Current	I_D	-100	mA
Pulsed Drain Current (Note.1)	I_{DM}	-200	
Power Dissipation	P_D	200	mW
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}	$I_D = -250 \mu A$, $V_{GS} = 0V$	-50			V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS} = -50V$, $V_{GS} = 0V$			-10	μA
Gate-Body leakage current	I_{GSS}	$V_{DS} = 0V$, $V_{GS} = \pm 7V$			± 1	μA
Gate Cut off Voltage	$V_{GS(off)}$	$V_{DS} = -5V$, $I_D = -1 \mu A$	-1		-3	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	$V_{GS} = -4V$, $I_D = -20mA$			50	Ω
Forward Transconductance	g_{FS}	$V_{DS} = -5V$, $I_D = -20mA$	30	50		mS
Input Capacitance	C_{iss}	$V_{GS} = 0V$, $V_{DS} = -5V$, $f = 1MHz$		18		pF
Output Capacitance	C_{oss}			11		
Reverse Transfer Capacitance	C_{rss}			3		
Turn-On DelayTime	$t_{d(on)}$	$V_{GS(on)} = -5V$, $V_{DS} = -5V$, $I_D = -20mA$, $R_L = 250 \Omega$, $R_{GEN} = 10 \Omega$		40		ns
Turn-On Rise Time	t_r			58		
Turn-Off DelayTime	$t_{d(off)}$			62		
Turn-Off Fall Time	t_f			62		

■ Marking

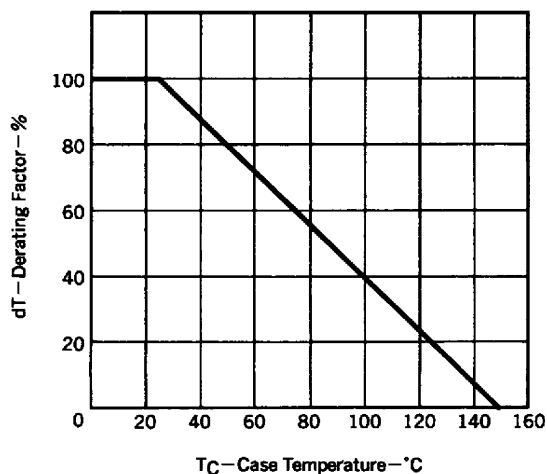
Marking	H11
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P-Channel MOSFET

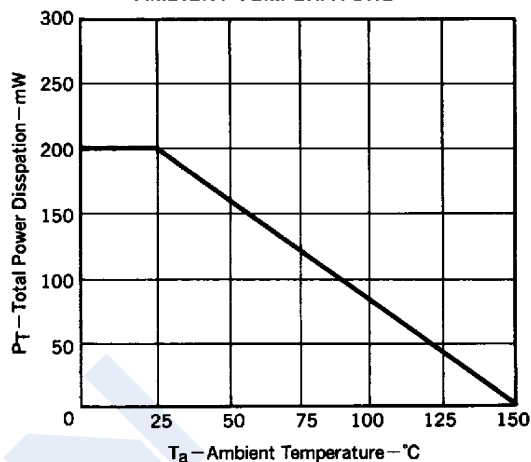
2SJ166

■ Typical Characteristics

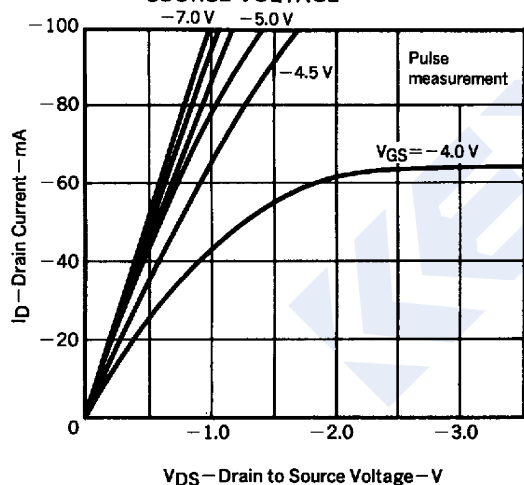
DERATING FACTOR OF FORWARD BIAS
SAFE OPERATING AREA



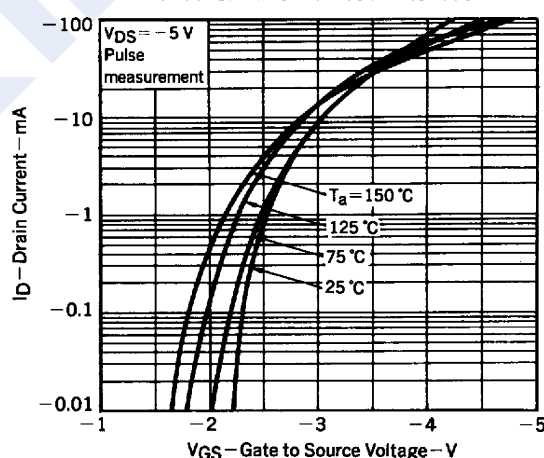
TOTAL POWER DISSIPATION vs.
AMBIENT TEMPERATURE



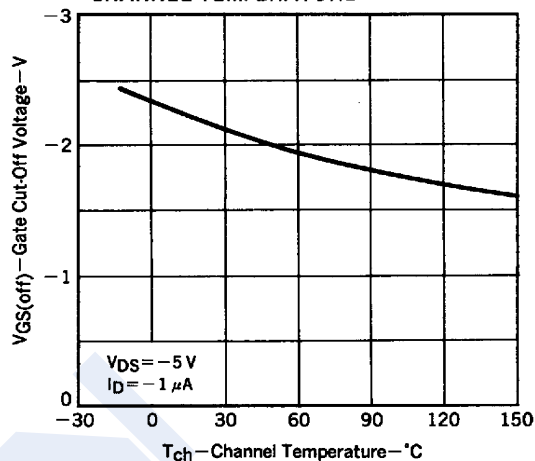
DRAIN CURRENT vs. DRAIN TO
SOURCE VOLTAGE



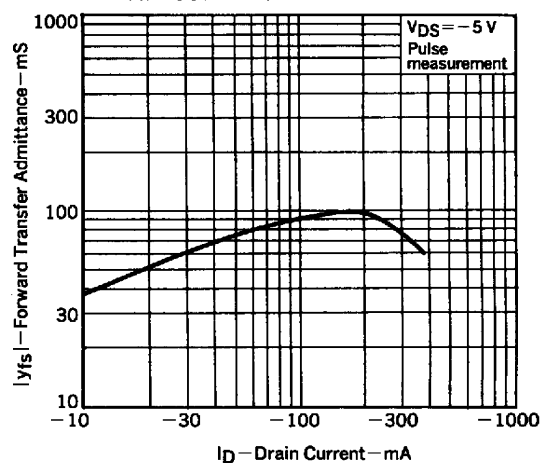
TRANSFER CHARACTERISTICS



GATE TO SOURCE CUTOFF VOLTAGE vs.
CHANNEL TEMPERATURE



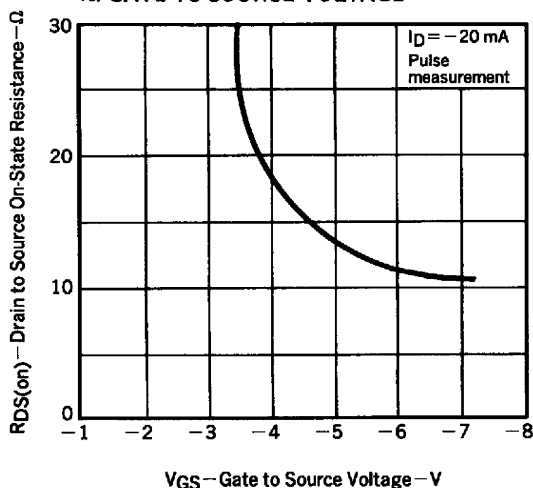
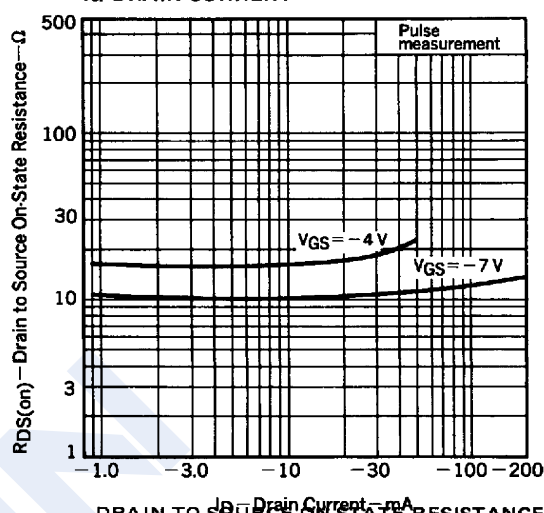
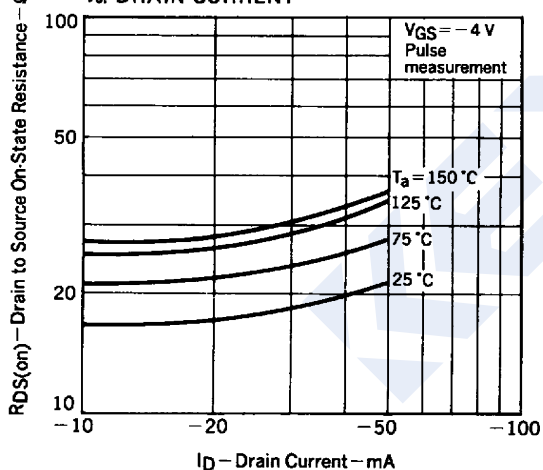
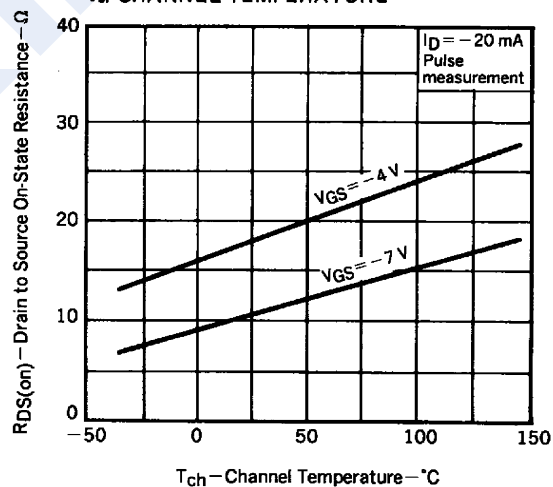
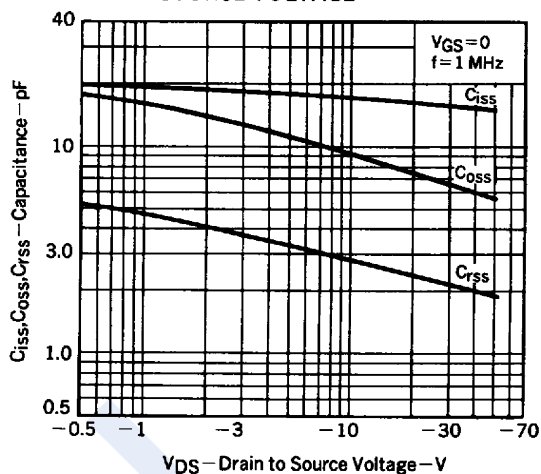
FORWARD TRANSFER ADMITTANCE vs.
DRAIN CURRENT



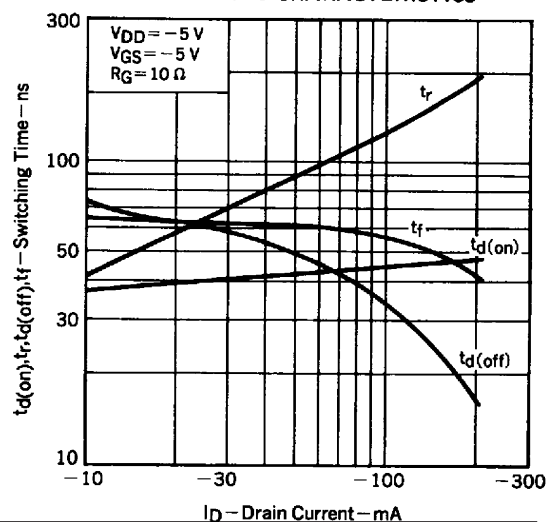
P-Channel MOSFET

2SJ166

■ Typical Characteristics

DRAIN TO SOURCE ON-STATE RESISTANCE
vs. GATE TO SOURCE VOLTAGEDRAIN TO SOURCE ON-STATE RESISTANCE
vs. DRAIN CURRENTDRAIN TO SOURCE ON-STATE RESISTANCE
vs. DRAIN CURRENTDRAIN TO SOURCE ON-STATE RESISTANCE
vs. CHANNEL TEMPERATURECAPACITANCE vs. DRAIN TO
SOURCE VOLTAGE

SWITCHING CHARACTERISTICS



P-Channel MOSFET

2SJ166

■ Typical Characteristics

