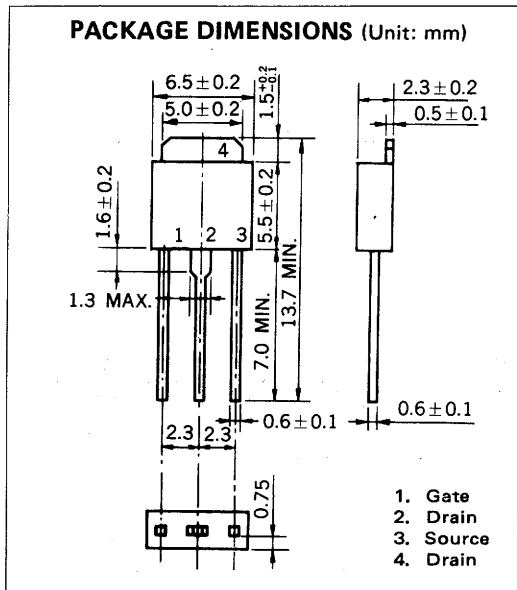


MOS FIELD EFFECT POWER TRANSISTOR
2SJ128

FAST SWITCHING
P-CHANNEL SILICON POWER MOS FET
INDUSTRIAL USE



FEATURES

- Suitable for switching power supplies, actuator controls, and pulse circuits.
- Low $R_{DS(on)}$
- No second breakdown
- 4 V Gate Drive – Logic level –

ABSOLUTE MAXIMUM RATINGS ($T_A = 25^\circ\text{C}$)

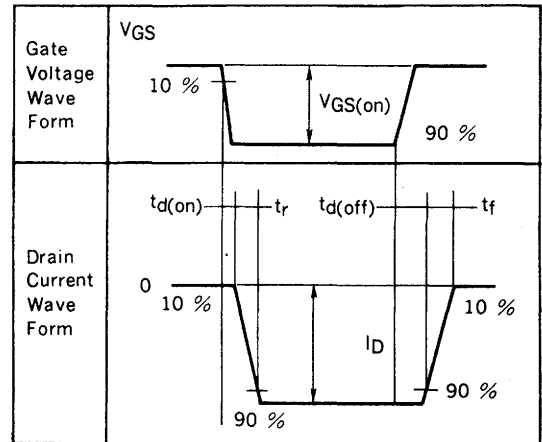
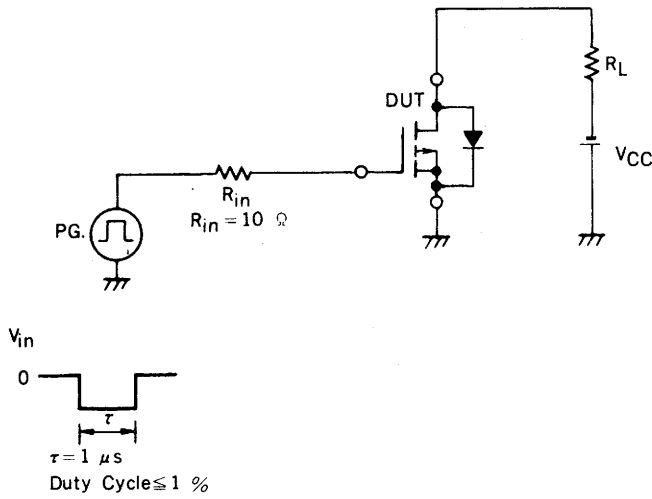
Drain to Source Voltage	V_{DSS}	-100	V
Gate to Source Voltage	V_{GSS}	± 20	V
Continuous Drain Current	$I_{D(DC)}$	∓ 2	A
Peak Drain Current	$I_{D(pulse)^*}$	∓ 8	A
Total Power Dissipation	P_T	20	W
Channel Temperature	T_{ch}	150	$^\circ\text{C}$
Storage Temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

* $PW \leq 300 \mu\text{s}$, Duty Cycle $\leq 10\%$

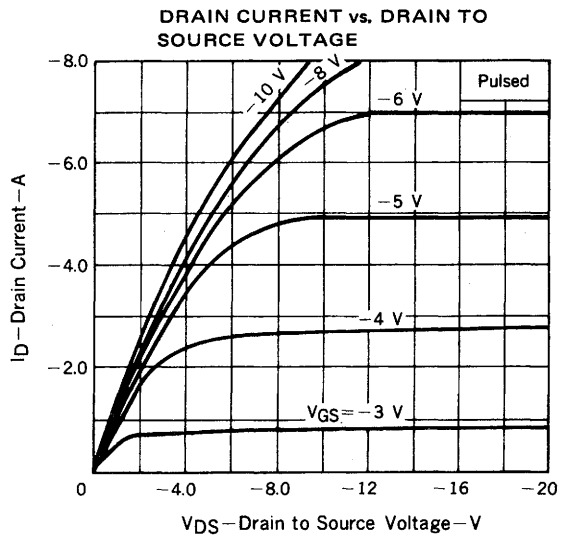
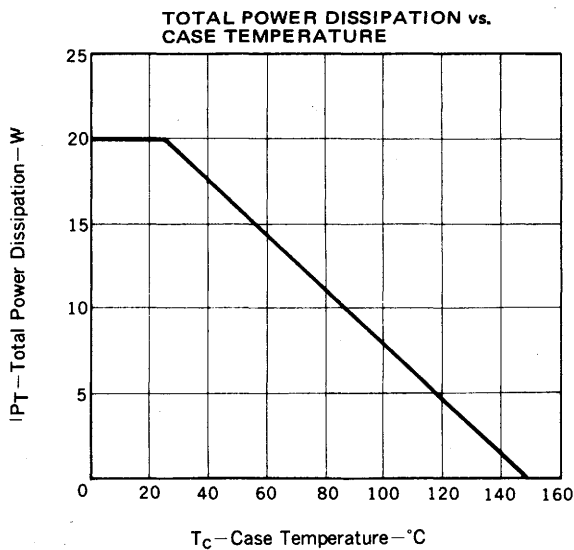
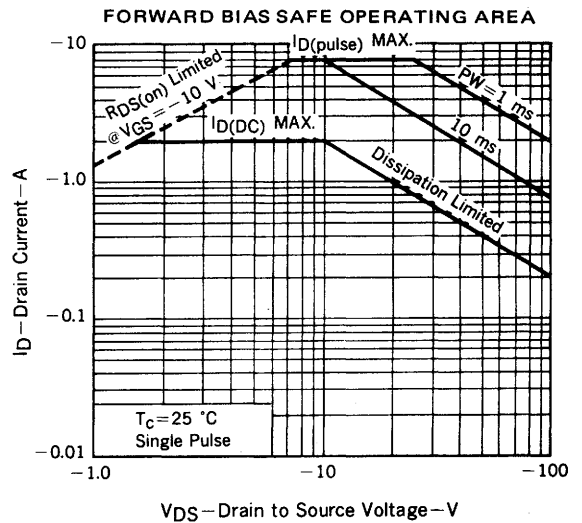
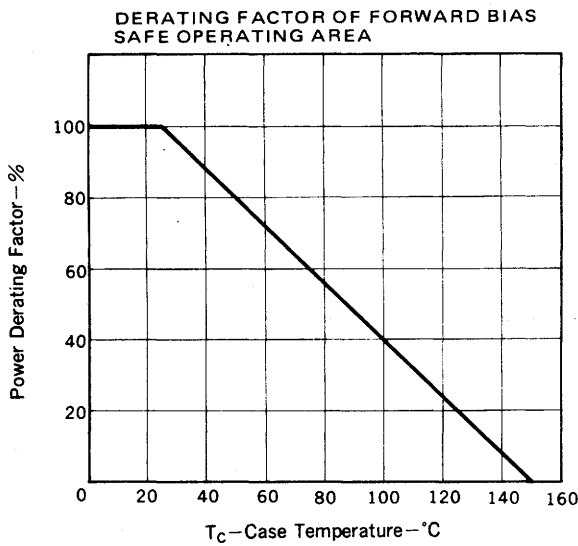
ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$)

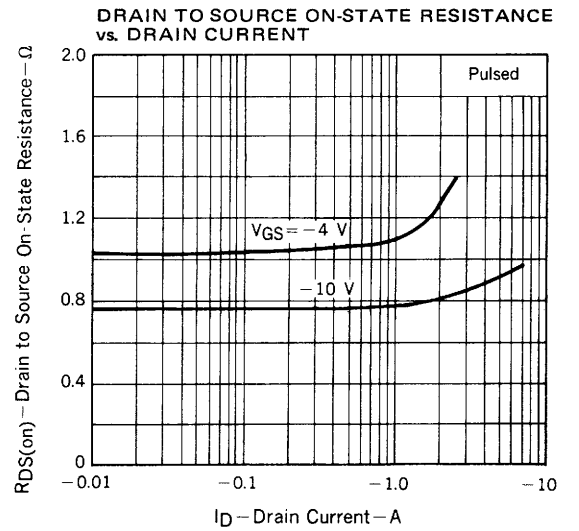
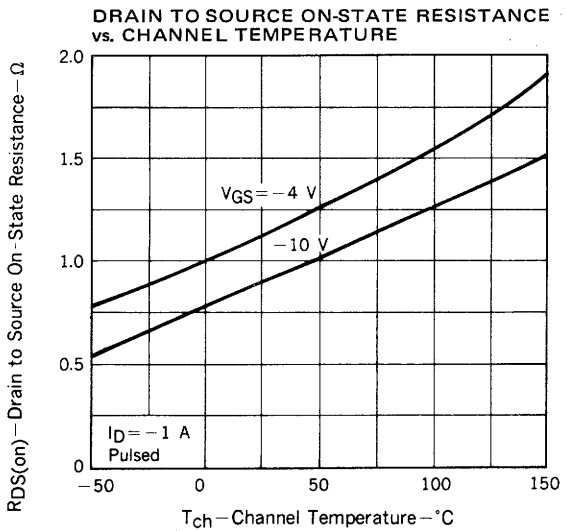
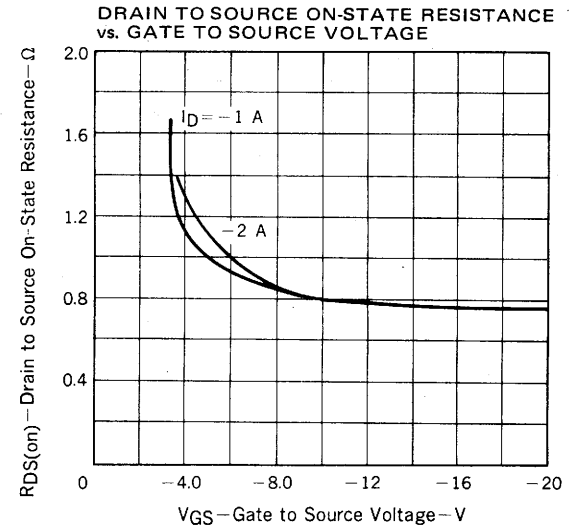
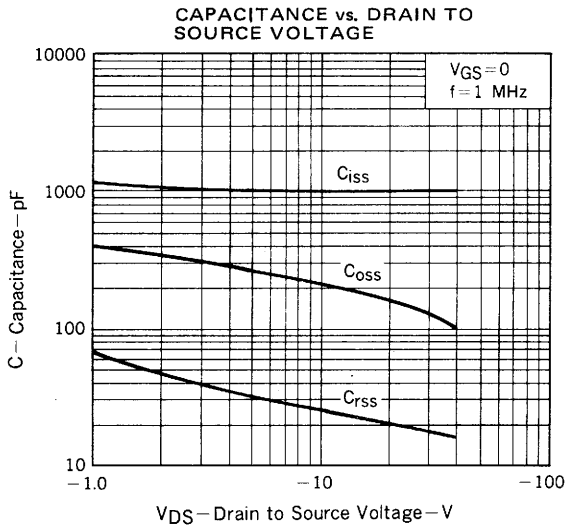
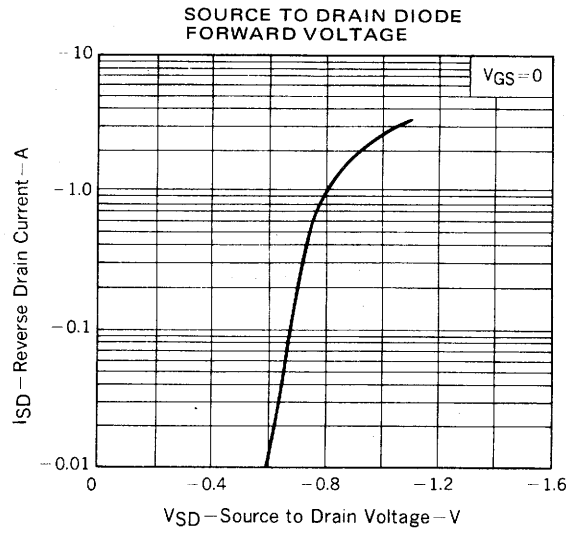
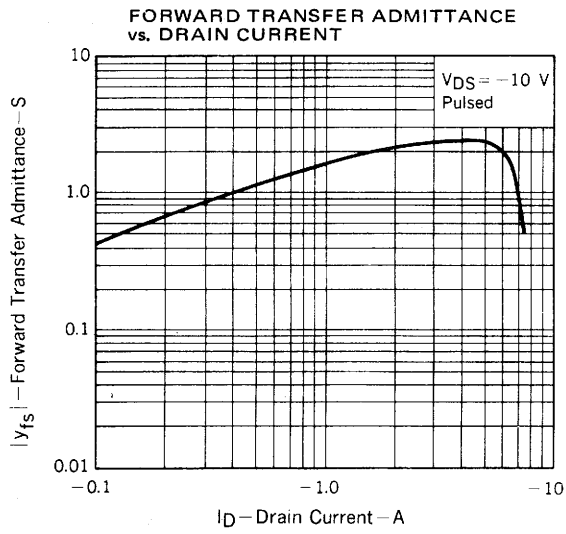
CHARACTERISTIC	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITIONS
Drain Leakage Current	I_{DSS}			-10	μA	$V_{DS} = -100\text{ V}$, $V_{GS} = 0$
Gate to Source Leakage Current	I_{GSS}			∓ 100	nA	$V_{GS} = -20\text{ V}$, $V_{DS} = 0$
Gate to Source Cutoff Voltage	$V_{GS(off)}$	-1.0		-3.0	V	$V_{DS} = -10\text{ V}$, $I_D = -1\text{ mA}$
Forward Transfer Admittance	$ y_{fs} $	1.0			S	$V_{DS} = -10\text{ V}$, $I_D = -1\text{ A}$
Drain to Source On-State Resistance	$R_{DS(on)}$		0.8	1.0	Ω	$V_{GS} = -10\text{ V}$, $I_D = -1\text{ A}$
Drain to Source On-State Resistance	$R_{DS(on)}$		1.1	1.5	Ω	$V_{GS} = -4\text{ V}$, $I_D = -0.8\text{ A}$
Input Capacitance	C_{iss}		1000		pF	$V_{DS} = -10\text{ V}$, $V_{GS} = 0$ $f = 1\text{ MHz}$
Output Capacitance	C_{oss}		200		pF	
Reverse Transfer Capacitance	C_{rss}		25		pF	
Turn-On Delay Time	$t_{d(on)}$		30		ns	$I_D = -1\text{ A}$, $V_{CC} = -50\text{ V}$ $V_{GS(on)} = -10\text{ V}$ $R_L = 10\ \Omega$ $R_{in} = 10\ \Omega$
Rise Time	t_r		30		ns	
Turn-Off Delay Time	$t_{d(off)}$		110		ns	
Fall Time	t_f		40		ns	

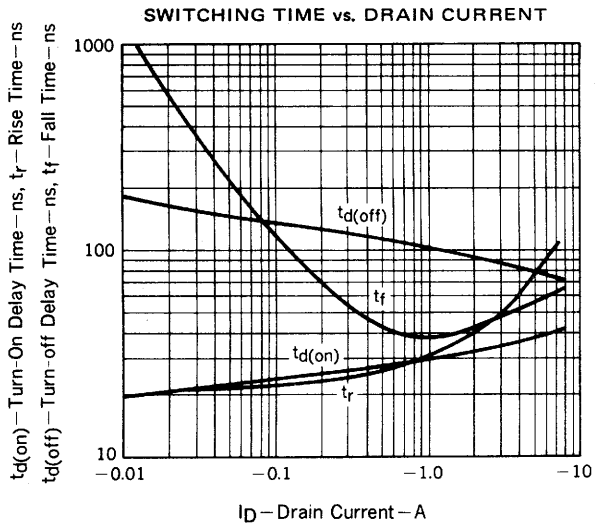
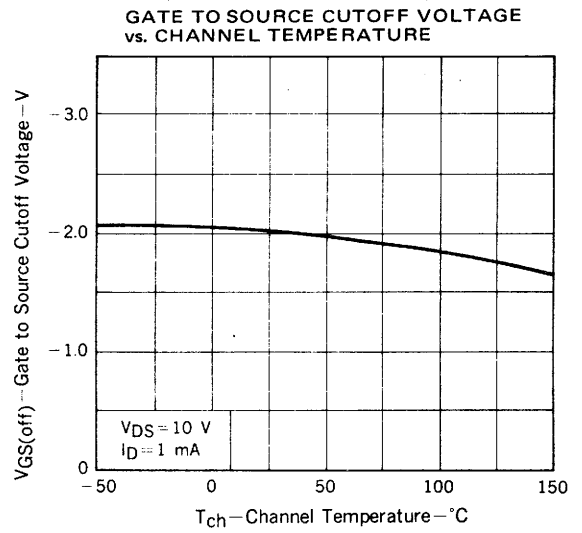
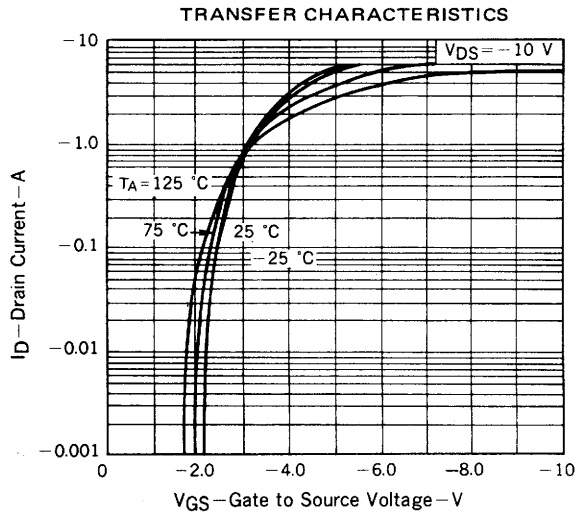
TURN-ON AND TURN-OFF TIME TEST CIRCUIT



TYPICAL CHARACTERISTICS ($T_A = 25^\circ C$)







(MEMO)

[MEMO]

[MEMO]

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