

INJ0212AP1

High Speed Switching
Silicon P-channel MOSFET

DESCRIPTION

INJ0210AP1 is a Silicon P-channel MOSFET.

This product is most suitable for use such as portable machinery, because of low voltage drive and low on resistance.

FEATURE

- Input impedance is high, and not necessary to consider a drive electric current.
- High drain current $I_D = -2.5A$
- V_{th} is low, and drive by low voltage is possible. $V_{th} = 1.0 \sim 2.5V$
- Low on Resistance. $R_{DS(on)} = 95m\Omega$ (TYP).
- High speed switching.

APPLICATION

Switching

MAXIMUM RATING (Ta=25°C)

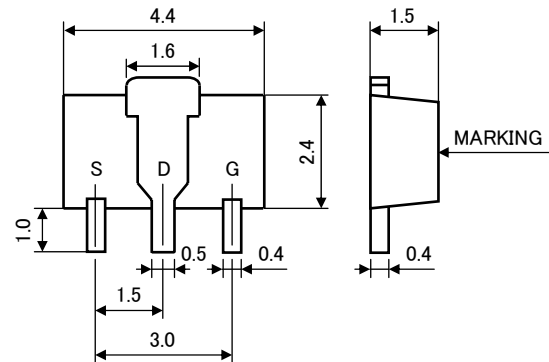
Symbol	Parameter	Rating	UNIT
VDSS	Drain-Source Voltage	-30	V
VGSS	Gate-Source Voltage	±20	V
ID(DC)	Drain Current (DC)	-2.5	A
IDP	Drain Current(Pulse) ※1	-5	A
PD	Total Power Dissipation	750(※2)	mW
Tch	Channel Temperature	150	°C
Tstg	Storage Temperature	-55~+150	°C

※1: $P_w \leq 10\mu s$, Duty cycle $\leq 1\%$

※2: package mounted on 9mm × 19mm × 1mm glass-epoxy substrate

OUTLINE DRAWING

UNIT: mm



TERMINAL CONNECTOR

S: SOURCE

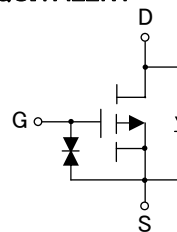
D: DRAIN

G: GATE

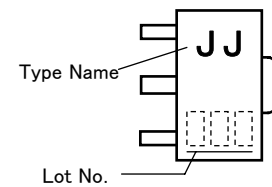
JEITA: SC-62

JEDEC: SOT-89

EQUIVALENT



MARKING

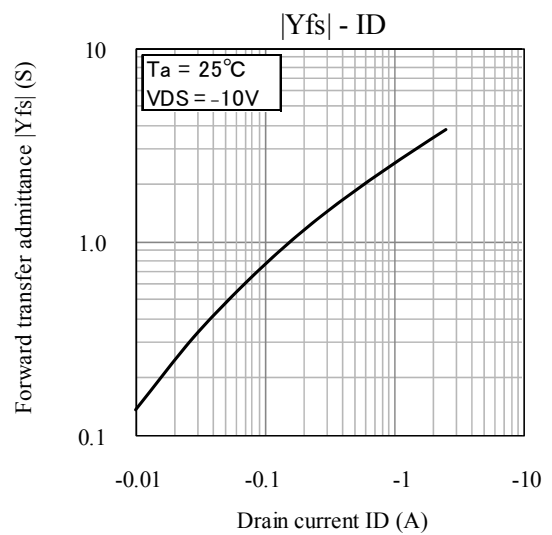
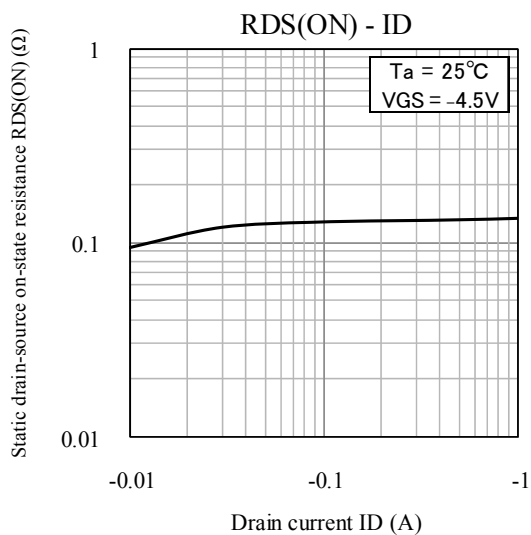
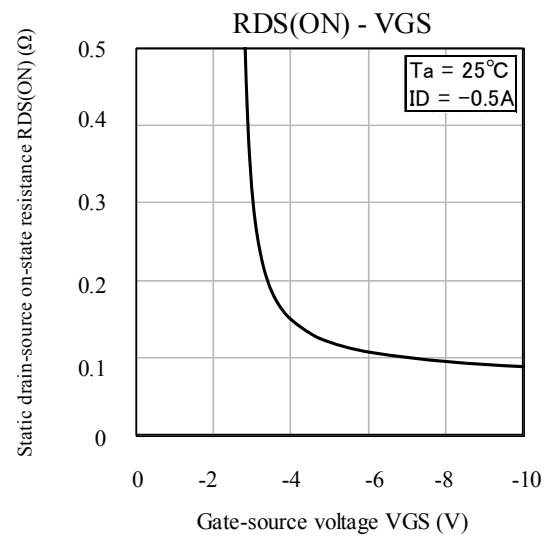
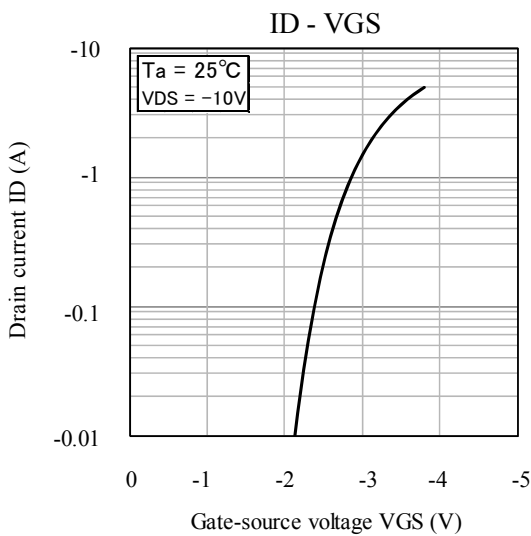
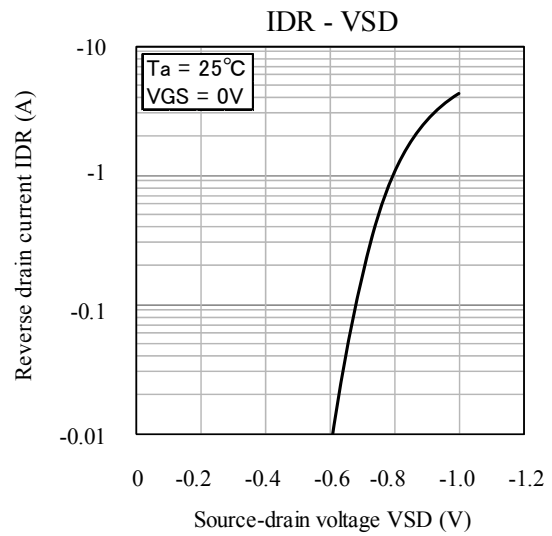
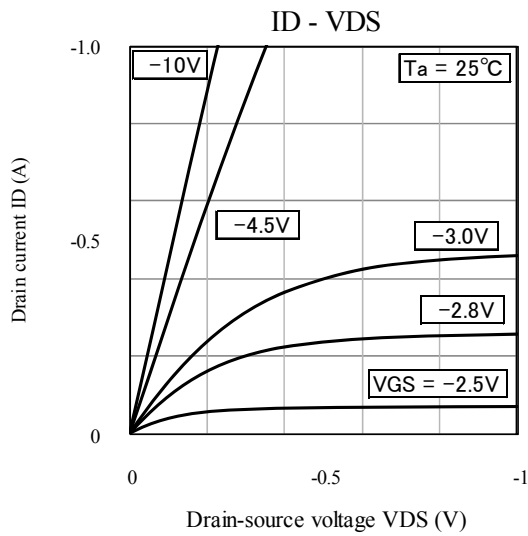


ELECTRICAL CHARACTERISTICS (Ta=25°C)

Parameter	Symbol	Test Condition	Limit			Unit
			MIN	TYP	MAX	
Drain-Source Breakdown Voltage	$V_{(BR)DSS}$	$I_D = -100\mu A, V_{GS} = 0V$	-30	-	-	V
Gate-Source Leak Current	I_{GSS}	$V_{GS} = \pm 20V, I_D = 0A$	-	-	±10	μA
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS} = -30V, V_{GS} = 0V$	-	-	-1	μA
Gate Threshold Voltage	V_{th}	$I_D = -250\mu A, V_{DS} = V_{GS}$	-1	-	-2.5	V
Forward Transfer Admittance	$ Y_{fs} $	$V_{DS} = -10V, I_D = -1.2A$	-	3.0	-	S
Static Drain-Source On-State Resistance	$R_{DS(on)}$	$I_D = -0.5A, V_{GS} = -4.5V$	-	120	-	mΩ
		$I_D = -0.5A, V_{GS} = -10V$	-	95	-	
Input Capacitance	C_{iss}	$V_{DS} = -10V, V_{GS} = 0V, f = 1MHz$	-	500	-	pF
Output Capacitance	C_{oss}		-	100	-	
Switching Time	t_{on}	$V_{DD} = -10V, I_D = -2.5A, V_{GS} = 0 \sim -5V$	-	35	-	ns
	t_{off}		-	50	-	

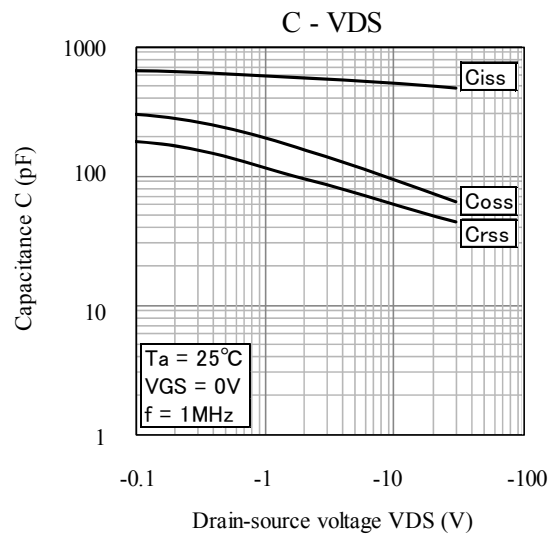
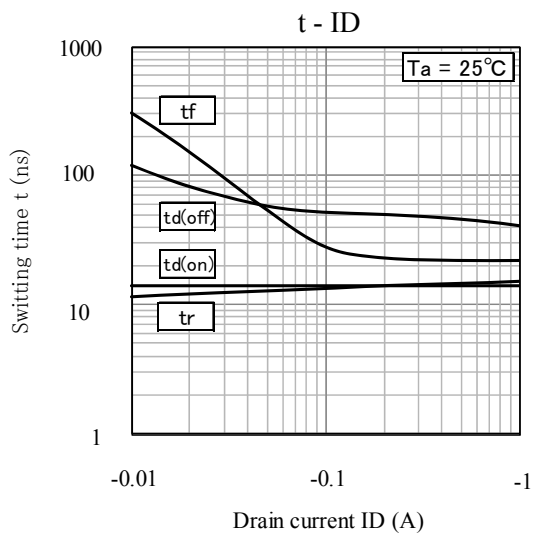
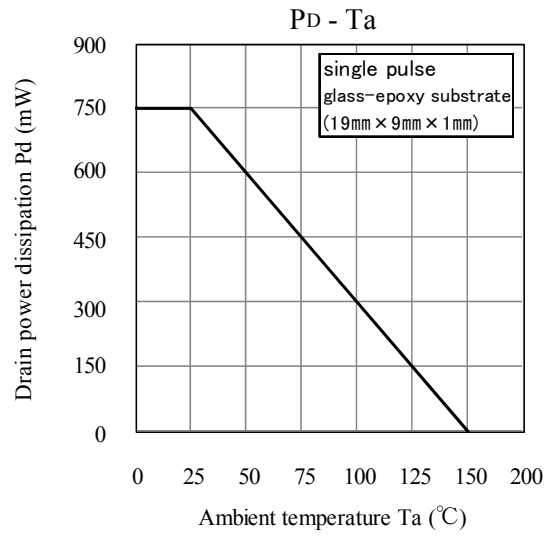
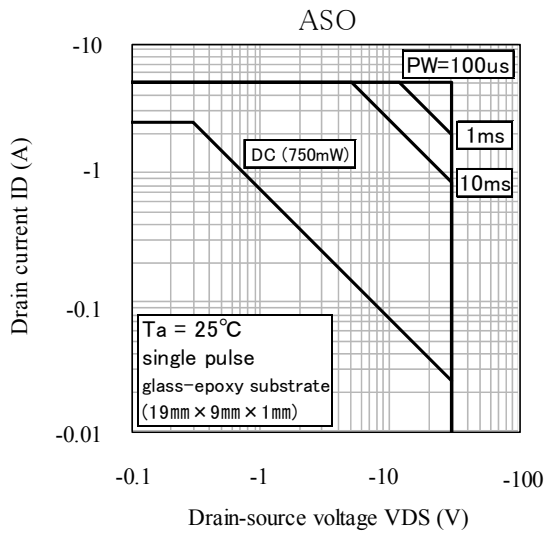
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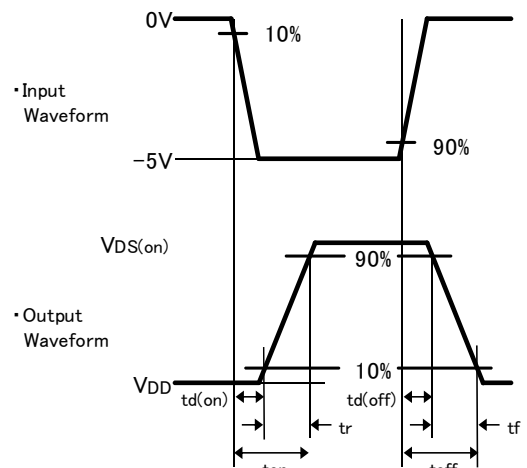
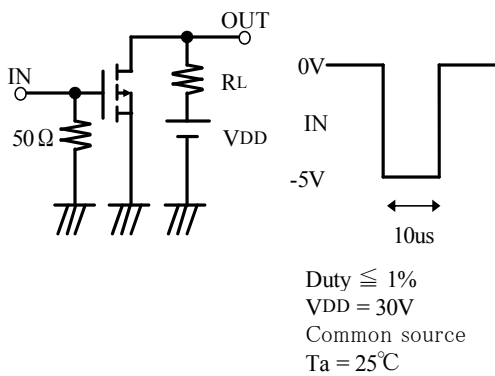


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Test circuit





6-41 Tsukuba, Isahaya, Nagasaki, 854-0065 Japan

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