

# INJ0002AX SERIES

High speed switching  
Silicon P-channel MOSFET

## DESCRIPTION

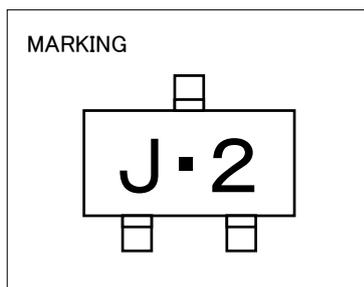
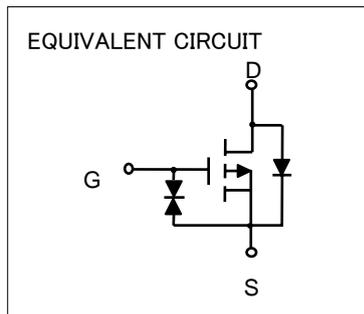
INJ0002AX is a Silicon P-channel MOSFET. This product is most suitable for low voltage use such as portable machinery, because of low voltage drive and low on resistance.

## FEATURE

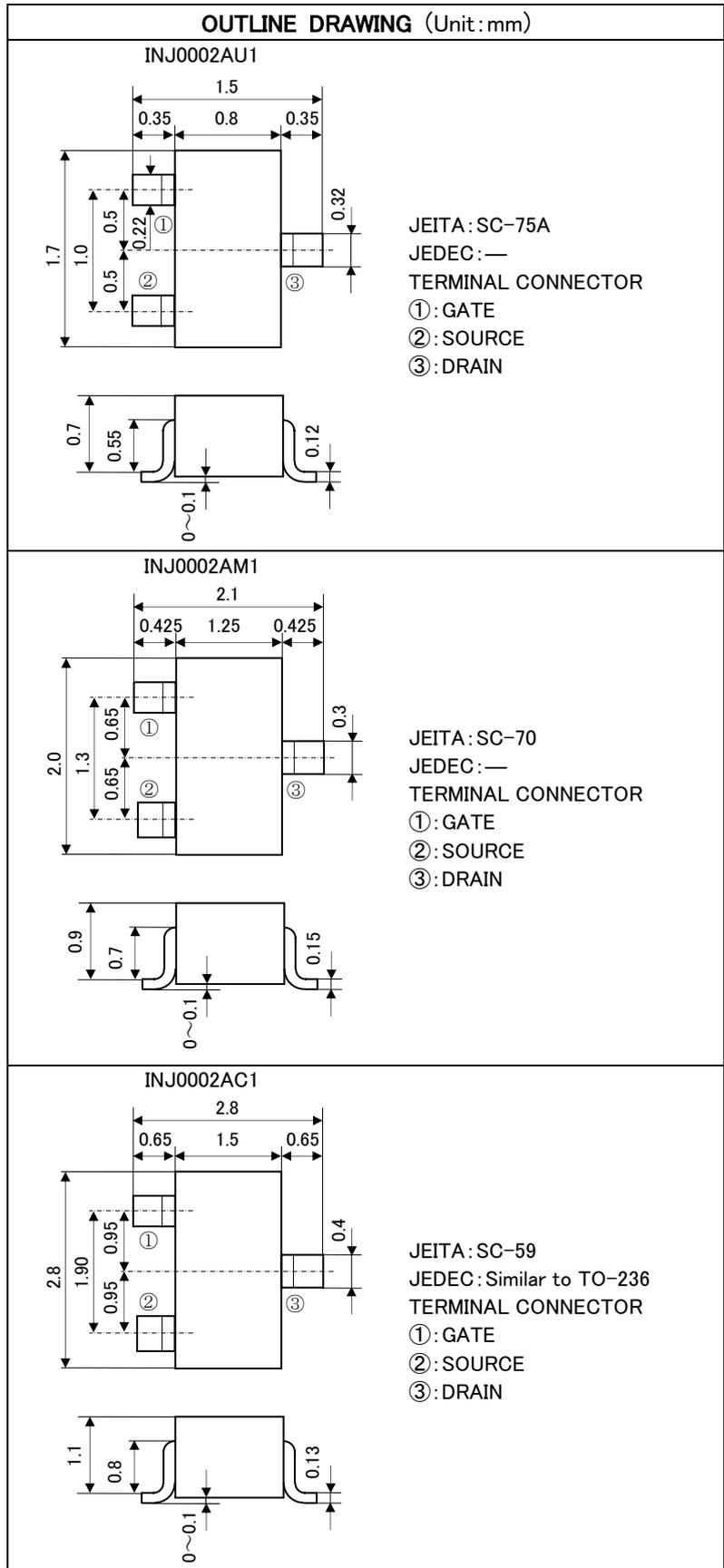
- Input impedance is high, and not necessary to consider a drive electric current.
- Drive voltage  $-2.5V$
- Low on Resistance.  
 $R_{DS(ON)}=3\Omega$  (TYP) @ $I_D=-100mA$ ,  $V_{GS}=-4.0V$
- High speed switching.
- Small package for easy mounting.

## APPLICATION

High speed switching, Analog switching



## OUTLINE DRAWING (Unit: mm)



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## MAXIMUM RATING (Ta=25°C)

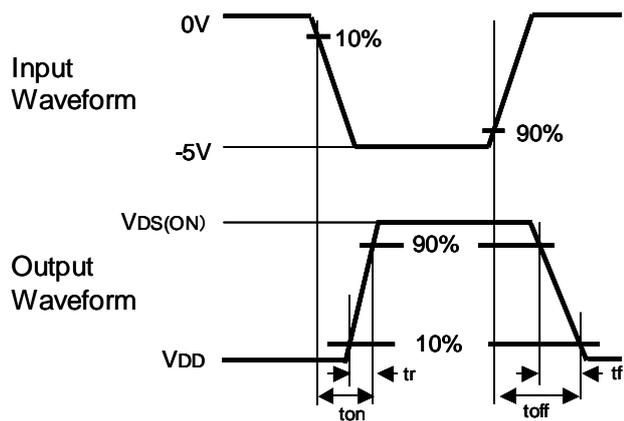
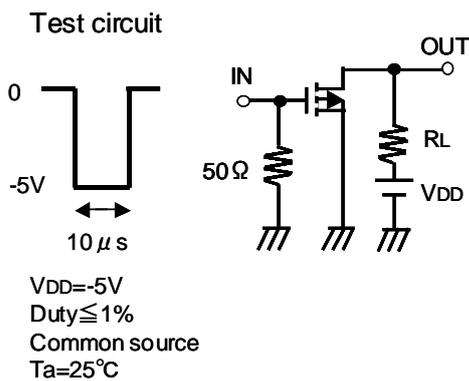
SYMBOL	PARAMETER	RATING			UNIT
		INJ0002AU1	INJ0002AM1	INJ0002AC1	
V <sub>DSS</sub>	Drain-source voltage	-30			V
V <sub>GSS</sub>	Gate-source voltage	±8			V
I <sub>D</sub>	Drain current(DC)	-200			mA
I <sub>DP</sub>	Drain current(Pulse)	-400(※1)			mA
P <sub>D</sub>	Total power dissipation	150	200		mW
T <sub>ch</sub>	Channel temperature	+150			°C
T <sub>stg</sub>	Range of Storage temperature	-55~+150			°C

※1: P<sub>w</sub> ≤ 10μs, Duty cycle ≤ 1%

## ELECTRICAL CHARACTERISTICS (Ta=25°C)

SYMBOL	PARAMETER	TEST CONDITION	LIMIT			UNIT
			MIN	TYP	MAX	
V <sub>(BR)DSS</sub>	Drain-source breakdown voltage	I <sub>D</sub> = -100μA, V <sub>GS</sub> = 0V	-30	-	-	V
I <sub>GSS</sub>	Gate-source leak current	V <sub>GS</sub> = ±5V, V <sub>DS</sub> = 0V	-	-	±0.5	μA
I <sub>DSS</sub>	Zero gate voltage drain current	V <sub>DS</sub> = -30V, V <sub>GS</sub> = 0V	-	-	-1.0	μA
V <sub>th</sub>	Gate threshold voltage	I <sub>D</sub> = -250μA, V <sub>DS</sub> = V <sub>GS</sub>	-0.6	-	-1.2	V
Y <sub>fs</sub>	Forward transfer admittance	V <sub>DS</sub> = -10V, I <sub>D</sub> = -0.1A	-	220	-	mS
R <sub>DS(ON)</sub>	Static drain-source on-state resistance	I <sub>D</sub> = -100mA, V <sub>GS</sub> = -4.0V	-	3.0	-	Ω
C <sub>iss</sub>	Input capacitance	V <sub>DS</sub> = -10V, V <sub>GS</sub> = 0V, f = 1MHz	-	35	-	pF
C <sub>oss</sub>	Output capacitance		-	7.3	-	
t <sub>on</sub>	Switching time	V <sub>DD</sub> = -5V, I <sub>D</sub> = -10mA V <sub>GS</sub> = 0 ~ -5V	-	14	-	ns
t <sub>off</sub>			-	100	-	

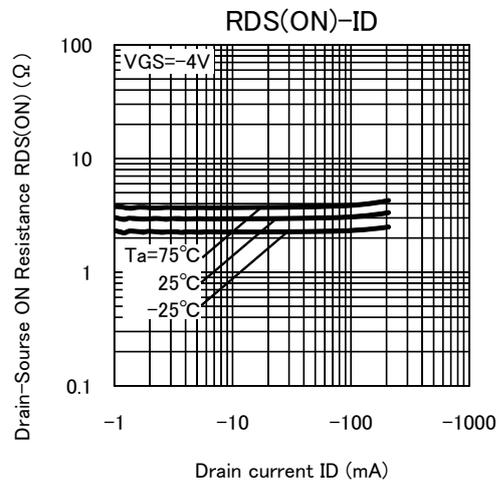
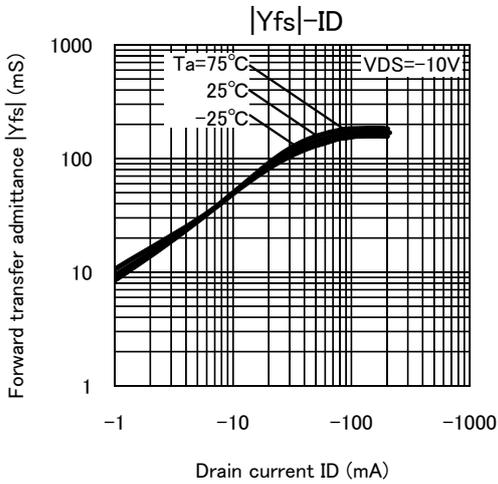
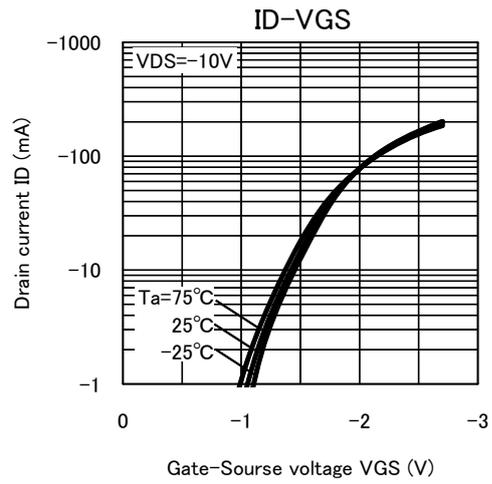
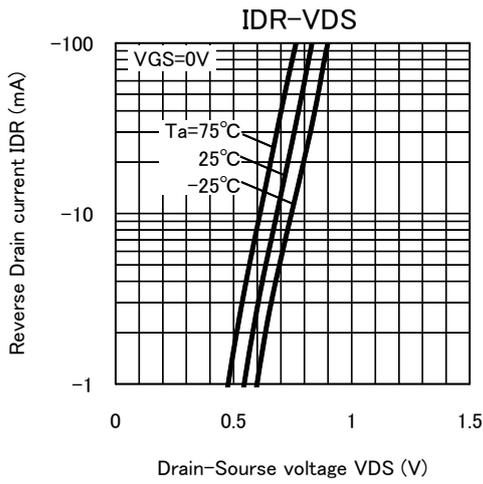
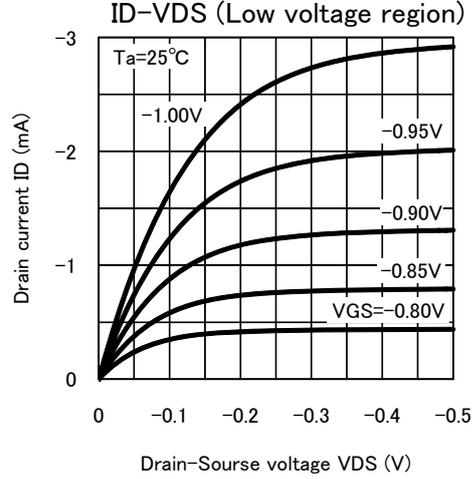
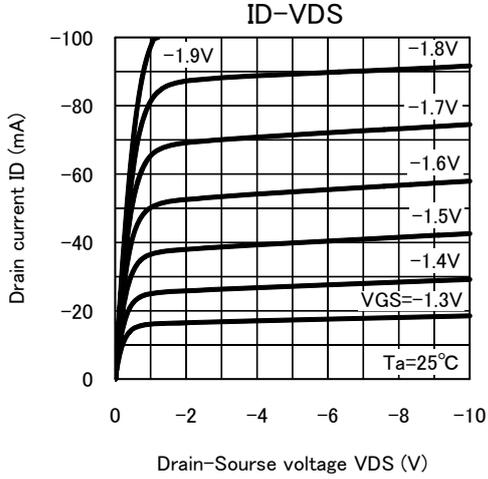
## Switching time test condition



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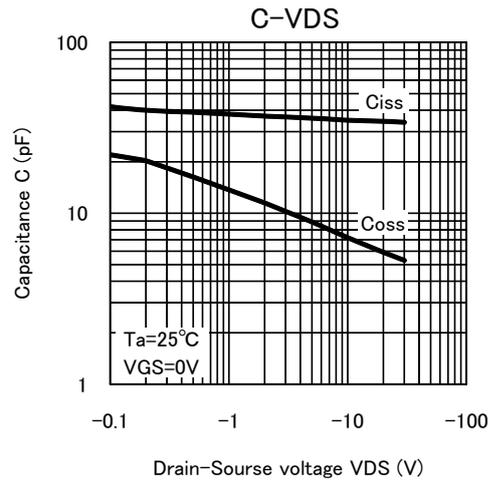
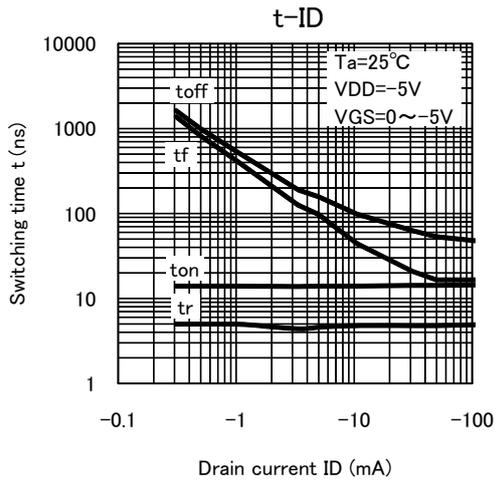
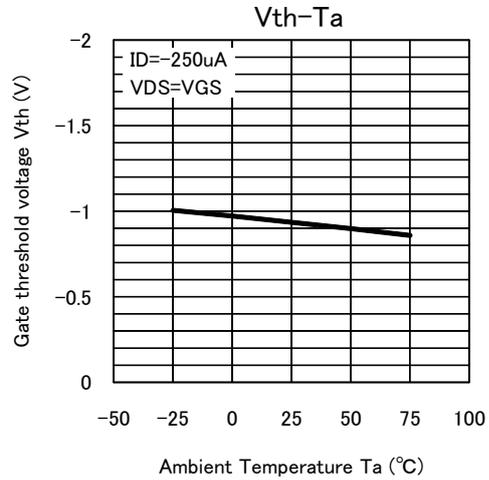
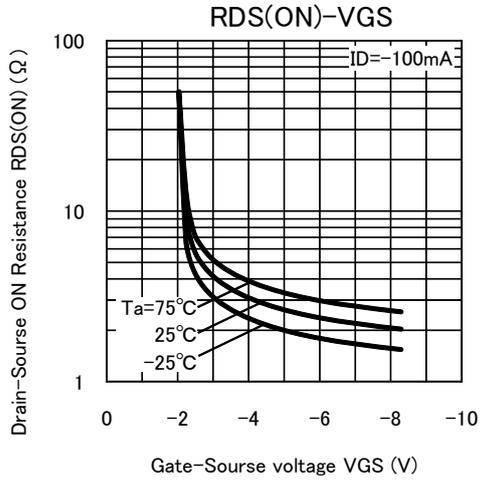
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## TYPICAL CHARACTERISTICS



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