

INJ0011AX SERIES

High speed switching
Silicon P-channel MOSFET

DESCRIPTION

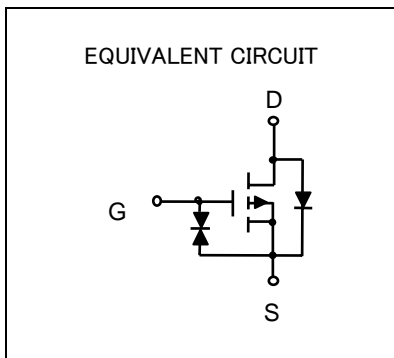
INJ0011AX is a Silicon P-channel MOSFET.
This product is most suitable for low voltage use such as portable machinery, because of low voltage drive and low on resistance.

FEATURE

- Input impedance is high, and not necessary to consider a drive electric current.
- V_{th} is low, and drive by low voltage is possible.
 $V_{th} = -1.0 \sim -2.0V$
- Low on Resistance.
 $R_{ds(on)} = 7.0 \Omega$ (TYP) @ $I_b = -100mA$, $V_{GS} = -4.0V$
 $R_{ds(on)} = 4.8 \Omega$ (TYP) @ $I_b = -100mA$, $V_{GS} = -10V$
- High speed switching.
- Small package for easy mounting.

APPLICATION

High speed switching, Analog switching



OUTLINE DRAWING

Unit : mm

INJ0011AT2(PRELIMINARY)	INJ0011AM1
<p>JEITA, JEDEC : — ISAHAYA : T-USM</p> <p>TERMINAL CONNECTOR ① : GATE ② : SOURCE ③ : DRAIN</p>	<p>JEITA : SC-70 JEDEC : —</p> <p>TERMINAL CONNECTOR ① : GATE ② : SOURCE ③ : DRAIN</p>
<p>JEITA : SC-75A JEDEC : —</p> <p>TERMINAL CONNECTOR ① : GATE ② : SOURCE ③ : DRAIN</p>	<p>JEITA : SC-59 JEDEC : Similar to TO-236</p> <p>T TERMINAL CONNECTOR ① : GATE ② : SOURCE ③ : DRAIN</p>

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MAXIMUM RATING (Ta=25°C)

SYMBOL	PARAMETER	RATING				UNIT
		INJ0001AT2	INJ0001AU1	INJ0001AM1	INJ0001AC1	
V _{DSS}	Drain-source voltage	-50				V
V _{GSS}	Gate-source voltage	±20				V
I _D	Drain current	-100				mA
P _D	Total power dissipation (Ta=25°C)	125(※)	150	200		mW
T _{ch}	Channel temperature	+125	+150			°C
T _{stg}	Range of Storage temperature	-55~+125	-55~+150			°C

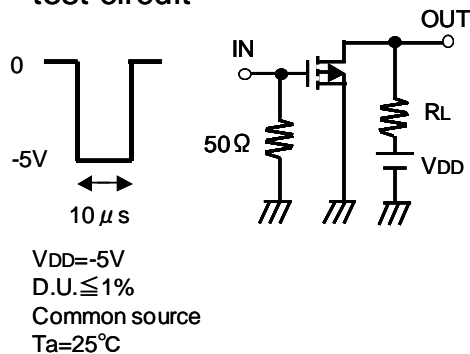
ELECTRICAL CHARACTERISTICS (Ta=25°C)

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

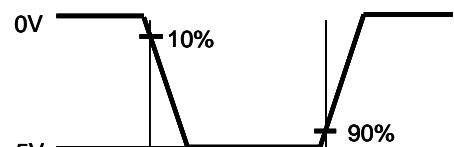
SYMBOL	PARAMETER	TEST CONDITION	LIMIT			UNIT
			MIN	TYP	MAX	
V _{(BR)DSS}	Drain-source breakdown voltage	I _D = -100 μA, V _{GS} = 0V	-50	-	-	V
I _{GSS}	Gate-source leak current	V _{GS} = ±20V, V _{DS} = 0V	-	-	±10	μA
I _{DSS}	Zero gate voltage drain current	V _{DS} = -50V, V _{GS} = 0V	-	-	-1.0	μA
V _{th}	Gate threshold voltage	I _D = -250 μA, V _{DS} = V _{GS}	-1.0	-	-2.0	V
Y _{fs}	Forward transfer admittance	V _{DS} = -10V, I _D = -100mA	-	145	-	mS
R _{DS(ON)}	Static drain-source on-state resistance	I _D = -100mA, V _{GS} = -4.0V	-	7.0	-	Ω
		I _D = -100mA, V _{GS} = -10V	-	4.8	-	
C _{iss}	Input capacitance	V _{DS} = -10V, V _{GS} = 0V, f = 1MHz	-	25	-	pF
C _{oss}	Output capacitance	V _{DS} = -10V, V _{GS} = 0V, f = 1MHz	-	6.0	-	pF
t _{ON}	Switching time	V _{DD} = -5V, I _D = -10mA V _{GS} = 0 ~ -5V	-	35	-	ns
t _{OFF}			-	90	-	

Switching time test condition

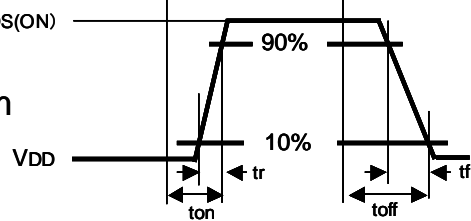
test circuit



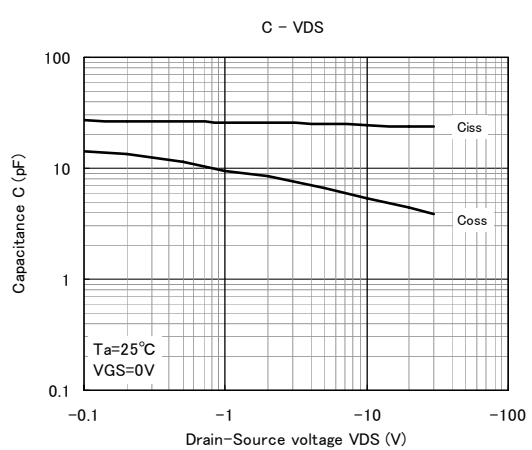
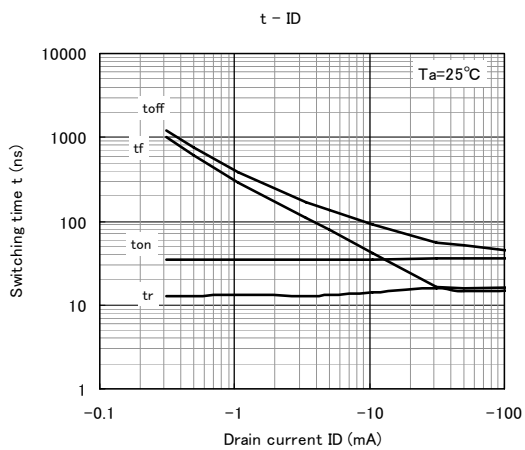
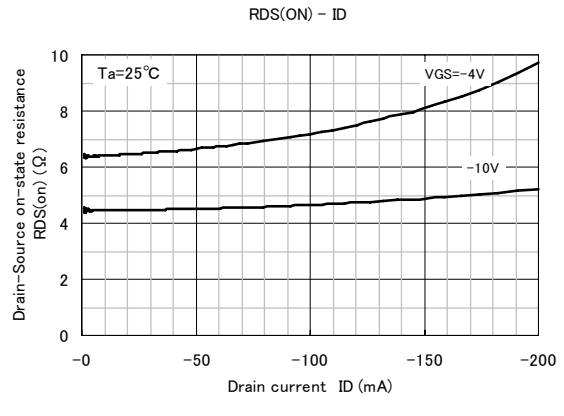
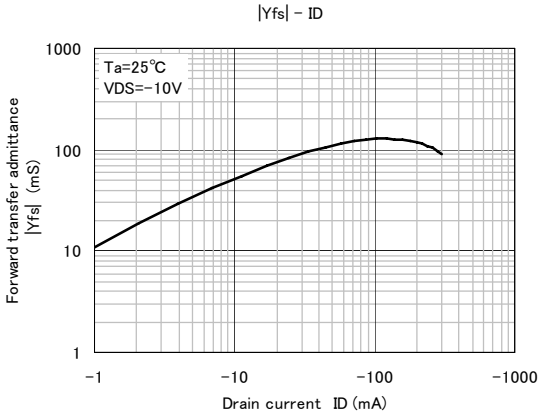
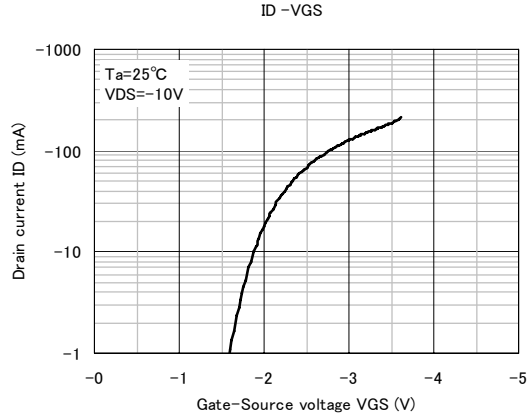
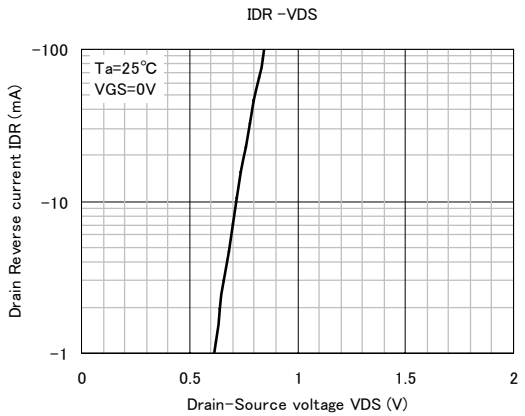
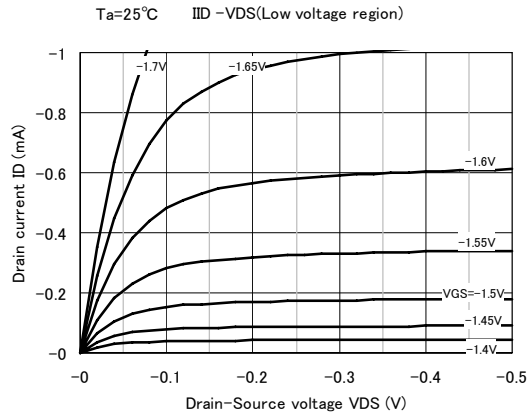
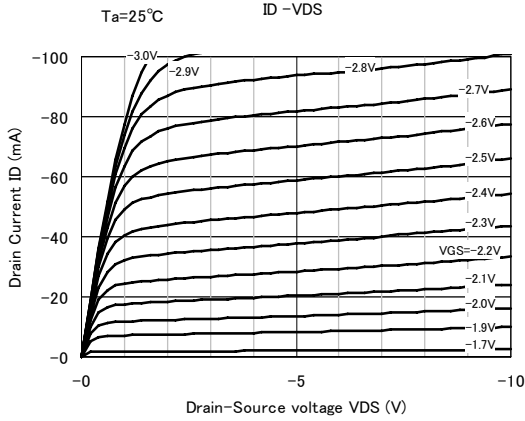
input waveform



output waveform



TYPICAL CHARACTERISTICS





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