

INJ0003AX SERIES

•PRELIMINARY

Notice: This is not a final specification
Some parametric are subject to change.

High speed switching
Silicon P-channel MOSFET

DESCRIPTION

INJ0003AX is a Silicon P-channel MOSFET.

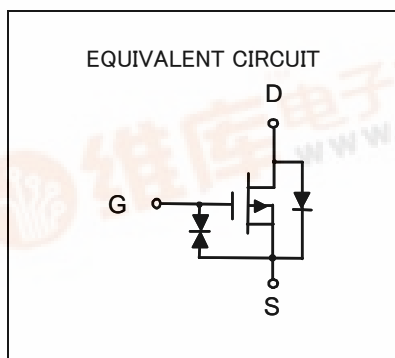
This product is most suitable for low voltage use such as portable machinery , because of low voltage drive and low on resistance.

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.
 $V_{th} = -0.6 \sim -1.2V$
- Low on Resistance. $R_{on} = 2\Omega$ (TYP)
- High speed switching.
- Small package for easy mounting.

APPLICATION

high speed switching , Analog switching



OUTLINE DRAWING

Unit : mm

<p>INJ0003AT2</p> <p>JEITA, JEDEC : — ISAHAYA : T-USM</p> <p>TERMINAL CONNECTOR</p> <p>① : GATE ② : SOURCE ③ : DRAIN</p>	<p>INJ0003AM1</p> <p>JEITA : SC-70 JEDEC : —</p> <p>TERMINAL CONNECTOR</p> <p>① : GATE ② : SOURCE ③ : DRAIN</p>
<p>INJ0003AU1</p> <p>JEITA : SC-75A JEDEC : —</p> <p>TERMINAL CONNECTOR</p> <p>① : GATE ② : SOURCE ③ : DRAIN</p>	<p>INJ0003AC1</p> <p>JEITA : SC-59 JEDEC : Similar to TO-236</p> <p>T TERMINAL CONNECTOR</p> <p>① : GATE ② : SOURCE ③ : DRAIN</p>

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MAXIMUM RATING(Ta=25°C)

SYMBOL	PARAMETER	RATING				UNIT
		INJ0003AT2	INJ0003AU1	INJ0003AM1	INJ0003AC1	
V _{DSS}	Drain-source voltage	-20				V
V _{GSS}	Gate-source voltage	±8				V
I _D	Drain current	-200				mA
P _D	Total power dissipation (Ta=25°C)	125(※)	150	200		mW
Tch	Channel temperature	+125	+150			°C
Tstg	Range of Storage temperature	-55~+125	-55~+150			°C

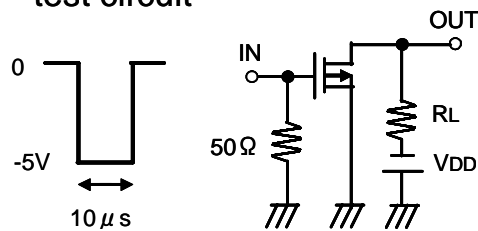
ELECTRICAL CHARACTERISTICS(Ta=25°C)

※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	$I_D = -100 \mu A, V_{GS} = 0V$	-20	-	-	V
I_{GSS}	Gate-source leak current	$V_{GS} = \pm 5V, V_{DS} = 0V$	-	-	± 0.5	μA
I_{DSS}	Zero gate voltage drain current	$V_{DS} = -20V, V_{GS} = 0V$	-	-	-50	μA
V_{th}	Gate threshold voltage	$I_D = -250 \mu A, V_{DS} = V_{GS}$	-0.6	-	-1.2	V
$ Y_{fs} $	Forward transfer admittance	$V_{DS} = -10V, I_D = -0.1A$	-	280	-	mS
$R_{DS(ON)}$	Static drain-source on-state resistance	$I_D = -100mA, V_{GS} = -4.0V$	-	2	-	Ω
C_{iss}	Input capacitance	$V_{DS} = -10V, V_{GS} = 0V, f = 1MHz$	-	37	-	pF
C_{oss}	Output capacitance	$V_{DS} = -10V, V_{GS} = 0V, f = 1MHz$	-	12	-	pF
t_{ON}	Switching time	$V_{DD} = -5V, I_D = -10mA$ $V_{GS} = 0 \sim -5V$	-	16	-	ns
t_{OFF}			-	110	-	

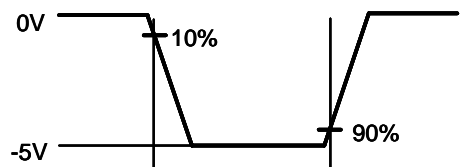
Switching time test condition

test circuit

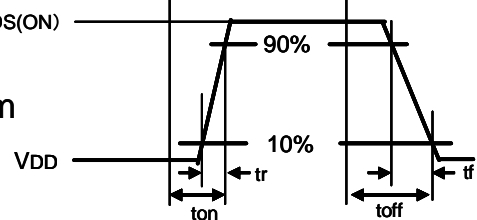


$V_{DD} = -5V$
D.U. $\leq 1\%$
Common source
Ta=25°C

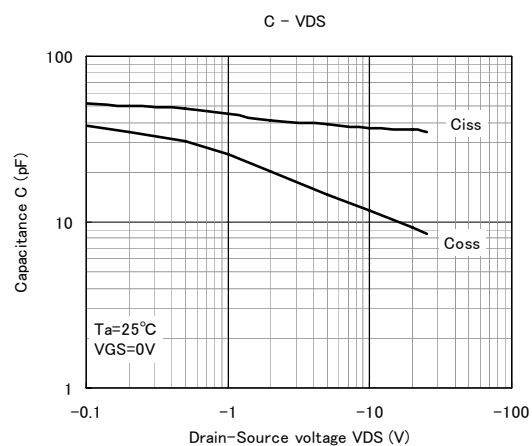
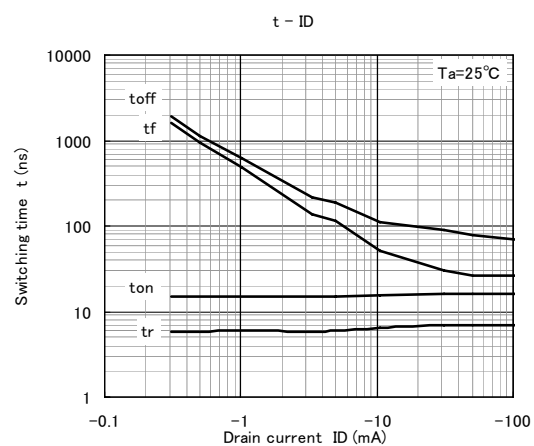
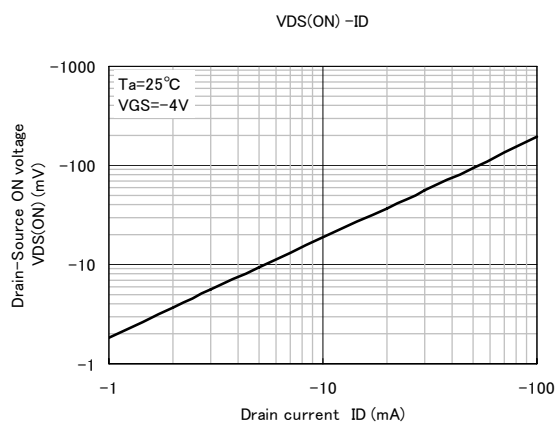
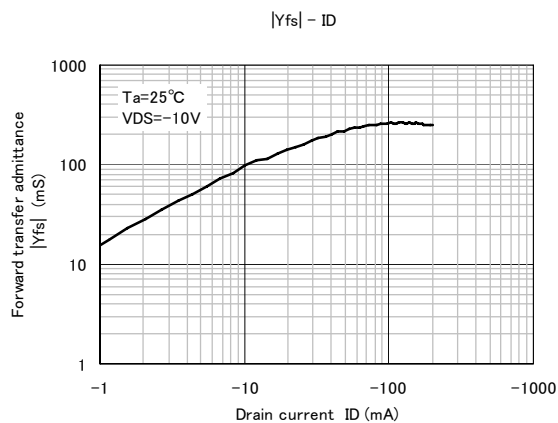
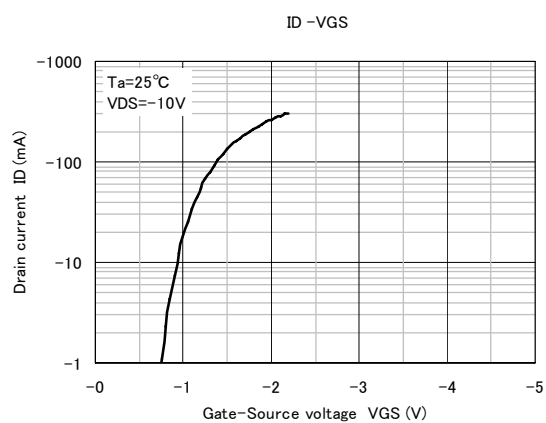
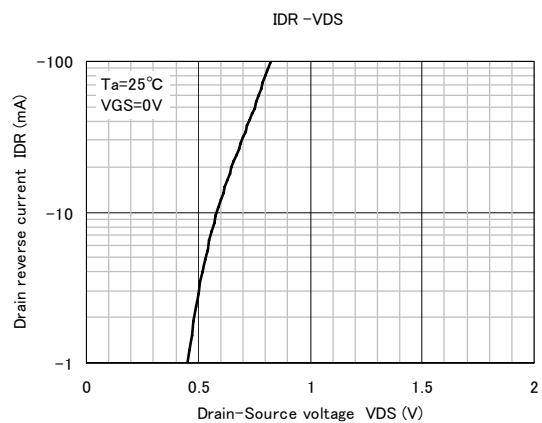
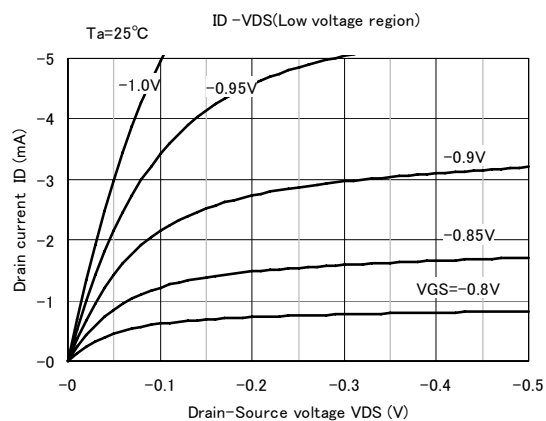
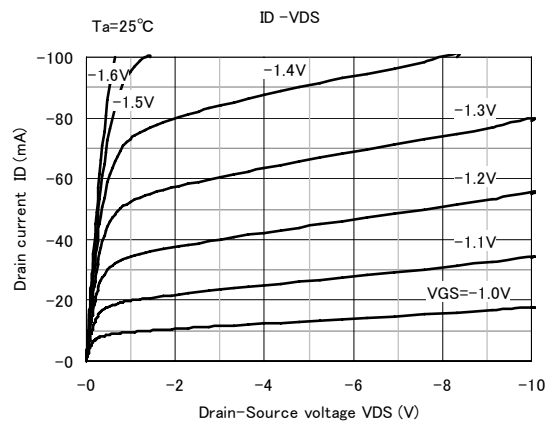
input waveform



output waveform



TYPICAL CHARACTERISTICS





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