

INJ0011AC1-T150

High Speed Switching
Silicon P-channel MOSFET

AEC-Q101 COMPLIANCE

DESCRIPTION

INJ0011AC1 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

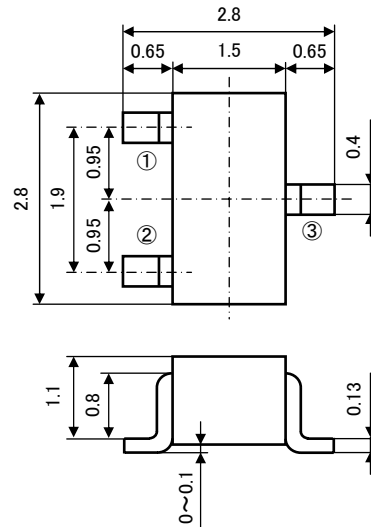
- Input impedance is high, and not necessary to consider a drive electric current.
- Drive voltage -4V
- Low on Resistance.
 $R_{DS(ON)}=7.0\ \Omega$ (TYP) @ $I_D=-100\text{mA}$, $V_{GS}=-4.0\text{V}$
 $R_{DS(ON)}=4.8\ \Omega$ (TYP) @ $I_D=-100\text{mA}$, $V_{GS}=-10\text{V}$
- High speed switching.
- Small package for easy mounting.

APPLICATION

High speed switching , Analog switching

OUTLINE DRAWING

UNIT: mm



JEITA: SC-59

JEDEC: Similar to TO-236

TERMINAL CONNECTOR

①: Gate

②: SOURCE

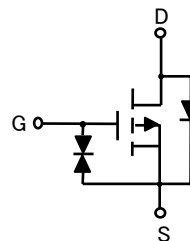
③: DRAIN

MAXIMUM RATING (Ta=25°C)

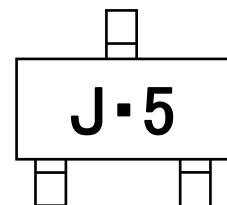
SYMBOL	PARAMETER	RATING	UNIT
VDSS	Drain-source voltage	-50	V
VGSS	Gate-source voltage	±20	V
ID	Drain current(DC)	-100	mA
IDP	Drain current(Pulse) ※1	-400	mA
PD	Total power dissipation	200	mW
Tch	Channel temperature	+150	°C
Tstg	Range of Storage temperature	-55~+150	°C

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

EQUIVALENT CIRCUIT



MARKING



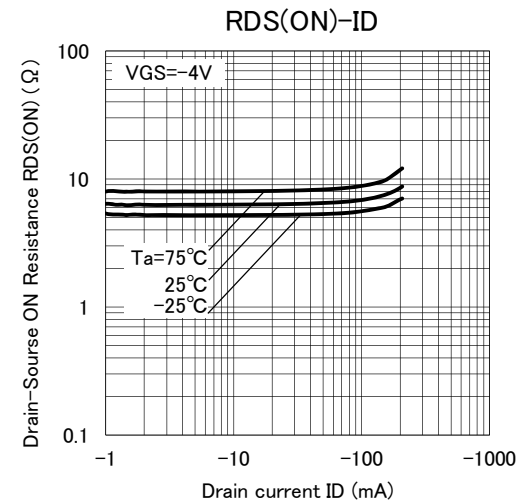
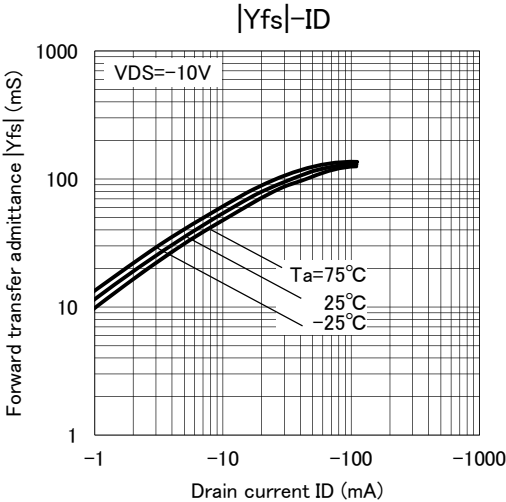
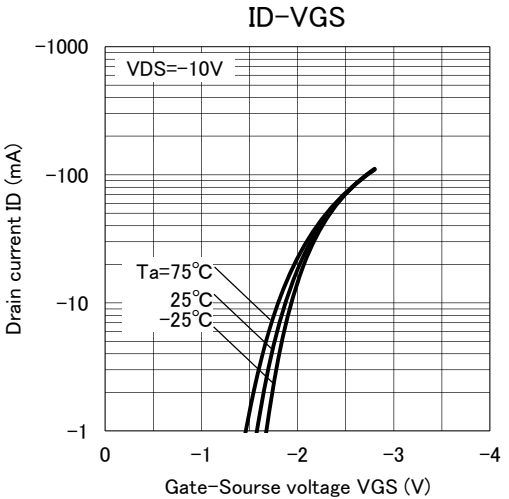
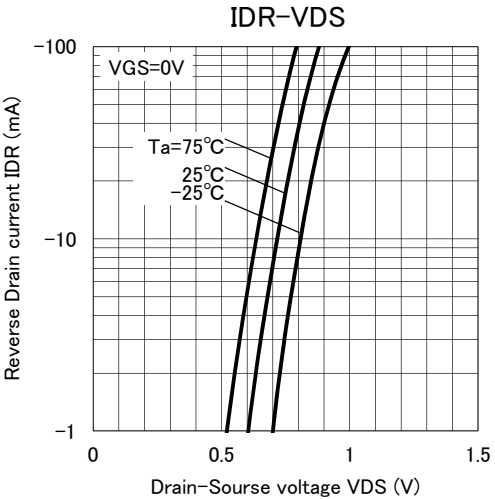
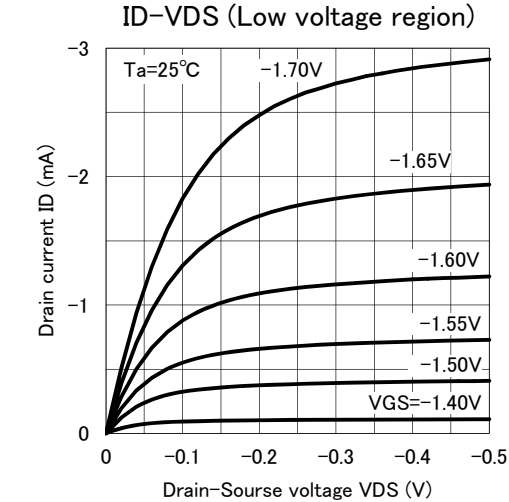
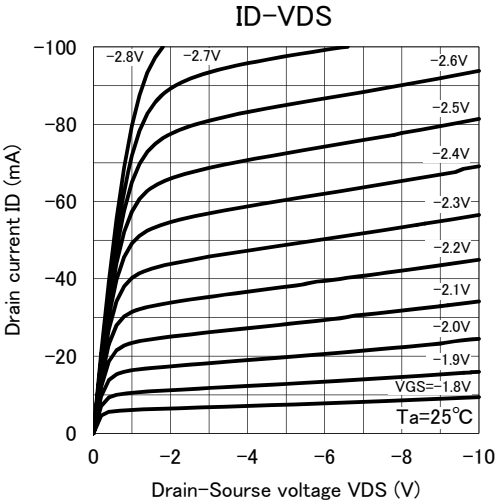
ELECTRICAL CHARACTERISTICS (Ta=25°C)

PARAMETER	SYMBOL	TEST CONDITION	LIMIT			UNIT
			MIN	TYP	MAX	
Drain-source breakdown voltage	V(BR)DSS	$I_D=-100\ \mu\text{A}$, $V_{GS}=0\text{V}$	-50	-	-	V
Gate-source leak current	IGSS	$V_{GS}=\pm 20\text{V}$, $V_{DS}=0\text{V}$	-	-	±1.0	μA
Zero gate voltage drain current	IDSS	$V_{DS}=-50\text{V}$, $V_{GS}=0\text{V}$	-	-	-1.0	μA
Gate threshold voltage	Vth	$I_D=-250\ \mu\text{A}$, $V_{DS}=V_{GS}$	-1.0	-	-2.0	V
Forward transfer admittance	Yfs	$V_{DS}=-10\text{V}$, $I_D=-100\text{mA}$	-	145	-	mS
Static drain-source on-state resistance	RDS(ON)	$I_D=-100\text{mA}$, $V_{GS}=-4.0\text{V}$	-	7.0	-	Ω
		$I_D=-100\text{mA}$, $V_{GS}=-10\text{V}$	-	4.8	-	
Input capacitance	Ciss	$V_{DS}=-10\text{V}$, $V_{GS}=0\text{V}$, $f=1\text{MHz}$	-	25	-	pF
Output capacitance	Coss		-	6.0	-	pF
Switching time	ton	$V_{DD}=-5\text{V}$, $I_D=-10\text{mA}$	-	35	-	ns
	toff	$V_{GS}=0\sim 5\text{V}$	-	90	-	ns

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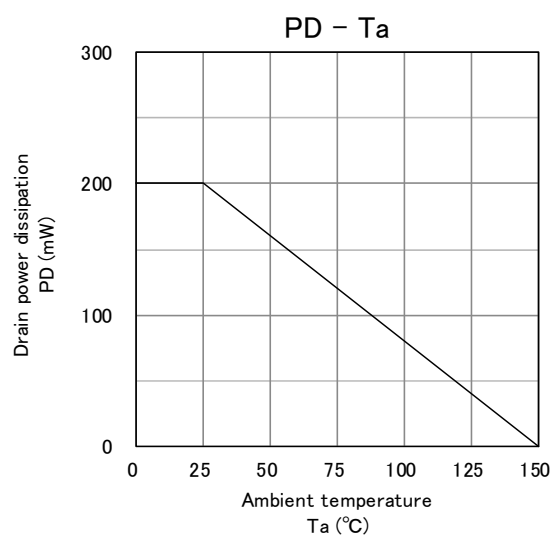
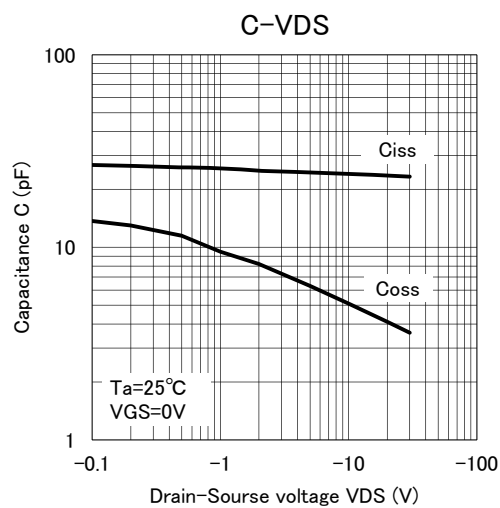
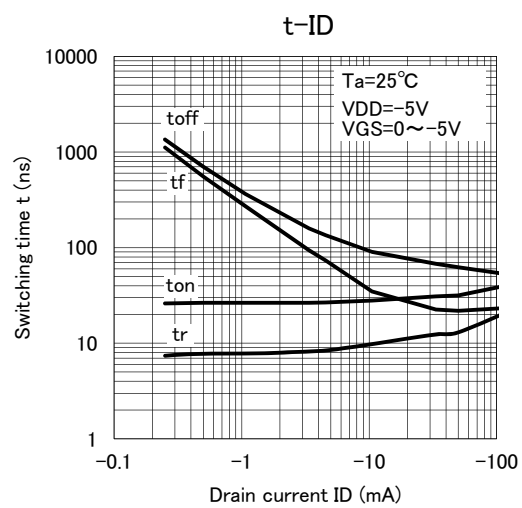
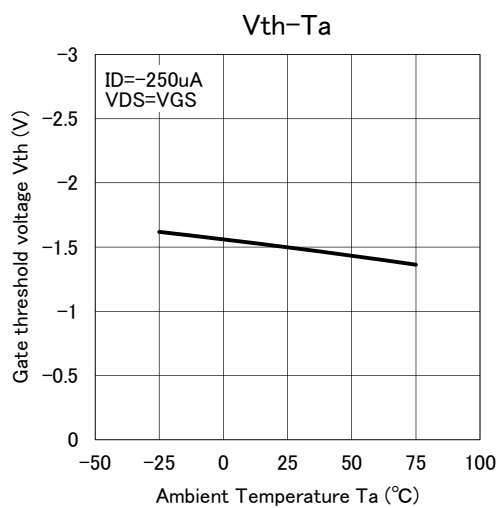
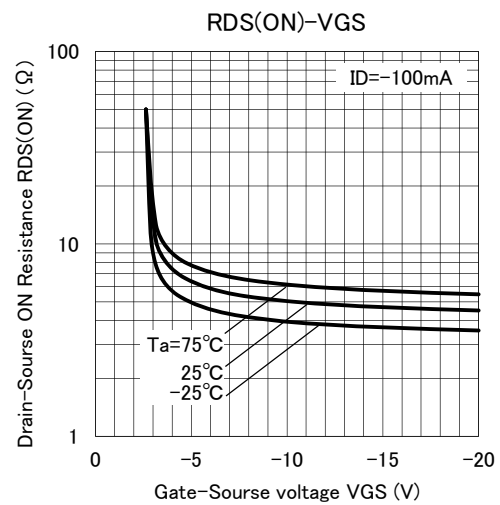
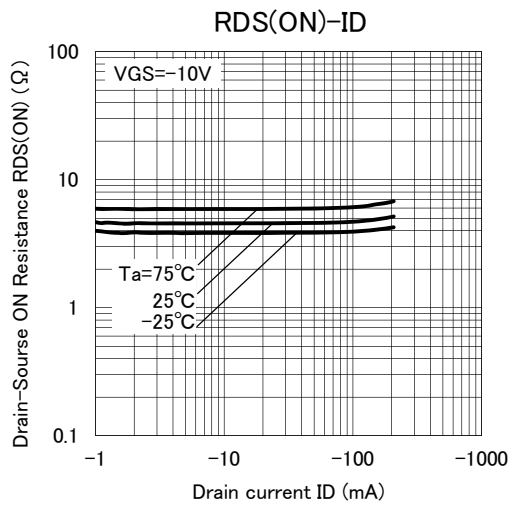
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TYPICAL CHARACTERISTICS

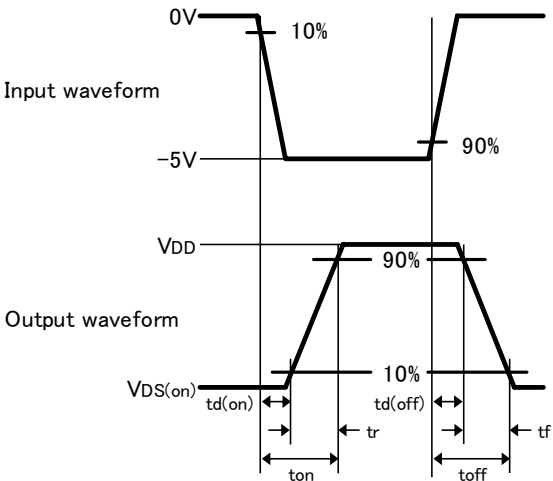
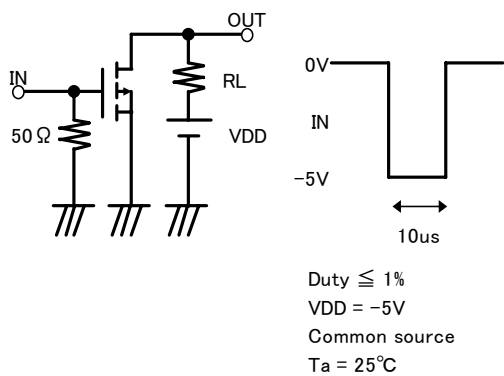


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Switching time test condition





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