

PRELIMINARY

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Some parametric are subject to change.

INK0410AC2

Switching Silicon N-channel MOSFET

DESCRIPTION

INK0410AC2 is a Silicon N-channel MOSFET.

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

FEATURE

- High drain current ID=3.8A
- Drive voltage 4.0V
- Low on Resistance. $RDS(ON)=50m\Omega$ typ(@VGS=10V).
 $RDS(ON)=55m\Omega$ typ(@VGS=4.5V).

APPLICATION

Switching.

MAXIMUM RATINGS (Ta=25°C)

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V _{DSS}	60	V
Gate-Source Voltage	V _{GSS}	±20	V
Drain Current(DC) (※1)	I _D	3.8	A
Drain Current(Pulse) (※2)	I _{DP}	12	A
Total Power Dissipation (※1)	P _D	1.5	W
Channel Temperature	T _{ch}	+150	°C
Storage Temperature	T _{stg}	-55~+150	°C

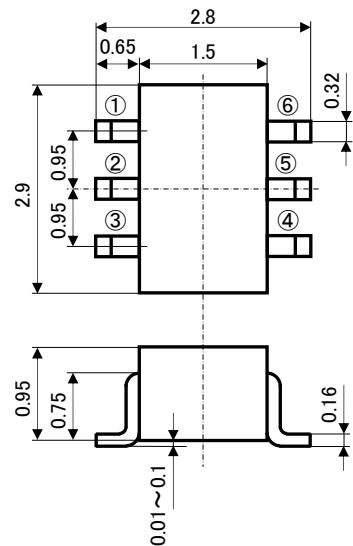
※1 package mounted on glass-epoxy substrate.

(39mm × 39mm × 1.6mm, Cu pad 1500mm²)

※2 $P_w \leq 10\text{ms}$, Duty cycle $\leq 1\%$

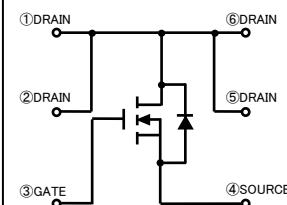
OUTLINE DRAWING

Unit: mm

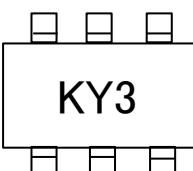


TERMINAL CONNECTOR
①:DRAIN
②:DRAIN
③:GATE
④:SOURCE
⑤:DRAIN
⑥:DRAIN

JEITA: Low-profile SC-74(SC-95)
JEDEC: SOT23-6L



MARKING



ELECTRICAL CHARACTERISTICS (Ta=25°C)

Parameter	Symbol	Test Condition	Limit			Unit
			MIN	TYP	MAX	
Drain-Source Breakdown Voltage	$V_{(BR)DSS}$	$I_D=250 \mu A, V_{GS}=0V$	60	—	—	V
Gate-Source Leak Current	I_{GSS}	$V_{GS}=\pm 20V, V_{DS}=0V$	—	—	± 1.0	μA
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=60V, V_{GS}=0V$	—	—	1.0	μA
Gate Threshold Voltage	V_{th}	$I_D=250 \mu A, V_{DS}=V_{GS}$	1.0	—	2.5	V
Static Drain-Source On-State Resistance	$R_{DS(ON)}$	$I_D=3.8A, V_{GS}=4.5V$	—	55	95	$m\Omega$
		$I_D=3.8A, V_{GS}=10V$	—	50	83	$m\Omega$
Input Capacitance	C_{iss}	$V_{DS}=10V, V_{GS}=0V, f=1MHz$	—	610	—	pF
Output Capacitance	C_{oss}		—	60	—	
Feedback Capacitance	C_{rss}		—	35	—	
Switching Time	t_{on}	$V_{DD}=20V, I_D=200mA, V_{GS}=5V$	—	30	—	ns
	t_{off}		—	50	—	

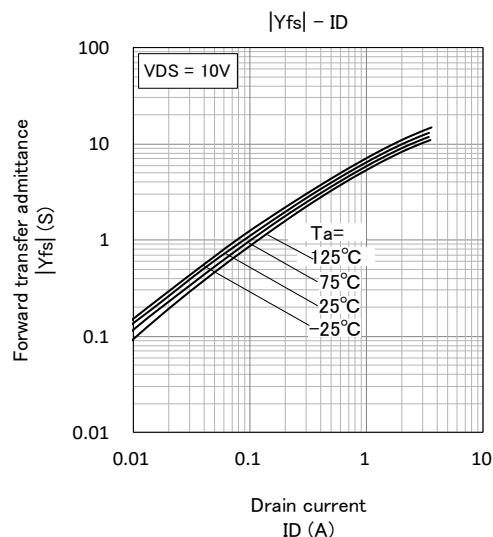
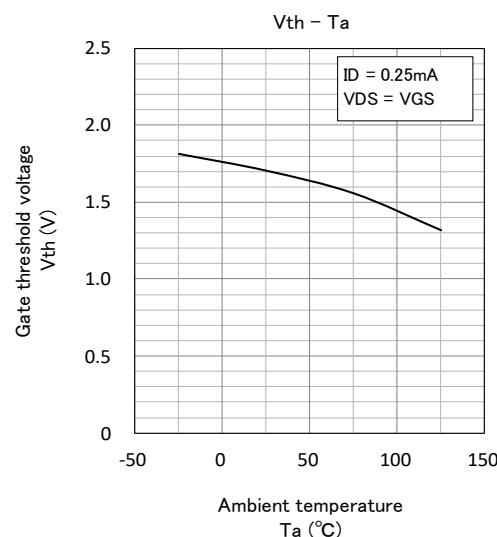
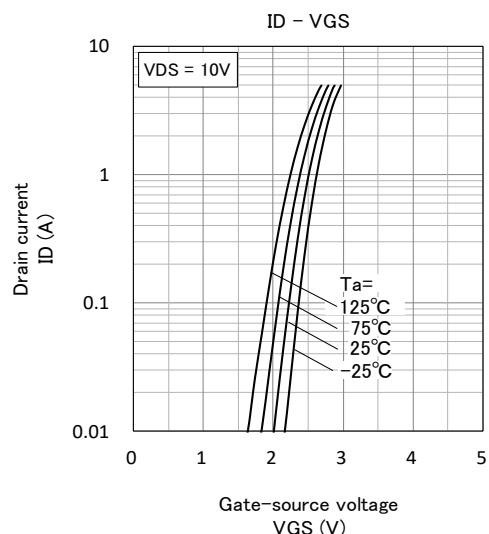
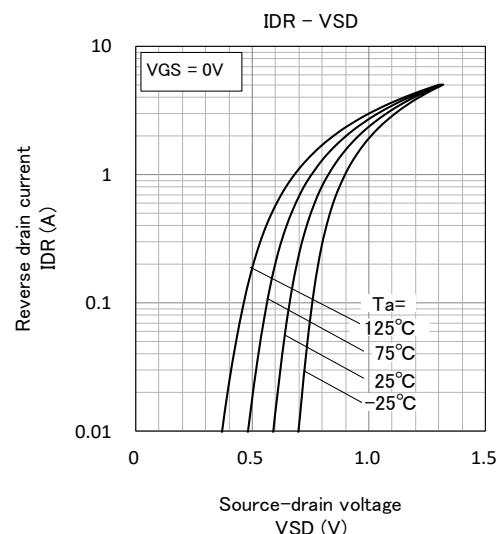
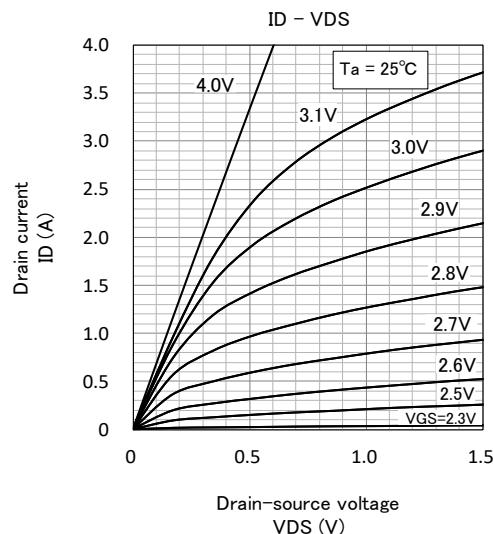
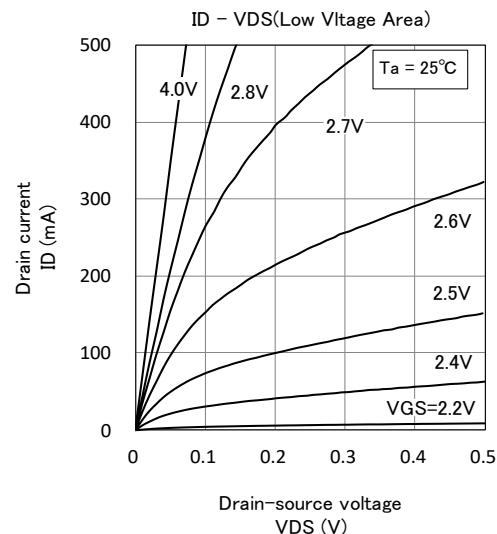
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TYPICAL CHARACTERISTICS

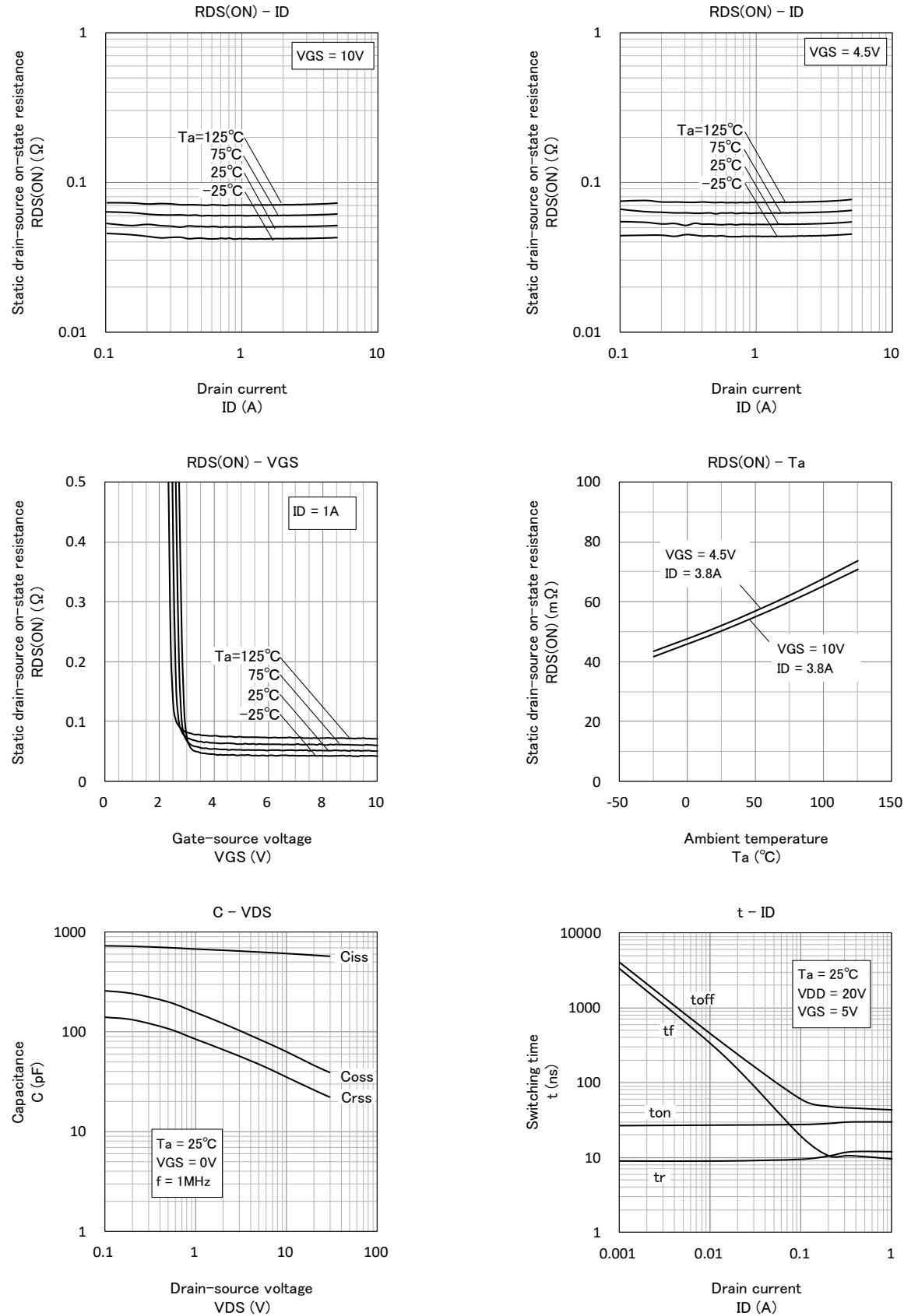


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