

INK013EAP1

High Voltage Switching
Silicon N-channel MOSFET

DESCRIPTION

INK013EAP1 is a Silicon N-channel MOSFET.
High voltage MOSFET is sealed in a small package.

FEATURE.

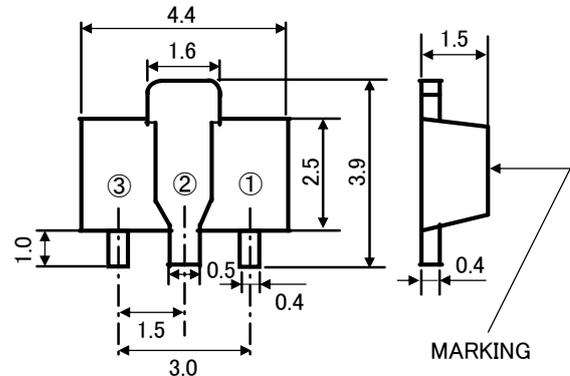
- Since the input impedance is high, there is no need to consider the drive current.
- High drain voltage. $V_{DSS}=500V$
- Drive voltage 10V
- High speed switching.

FEATURE

DC-DC converter, High Voltage Switching

OUTLINE DRAWING

UNIT:mm



TERMINAL CONNECTOR

- ①: GATE
- ②: DRAIN
- ③: SOURCE

JEITA: SC-62

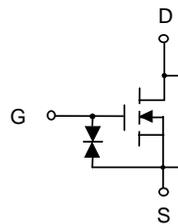
JEDEC: SOT-89

MARKING

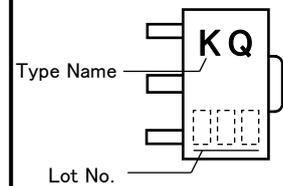
MAXIMUM RATINGS (Ta=25°C)

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DSS}	500	V
Gate-Source Voltage	V_{GSS}	± 30	V
Drain Current(DC) (※1)	I_D	0.5	A
Drain Current(Pulse) (※1)	I_{DP}	1.5	A
Total Power Dissipation	PD	0.5	W
Channel Temperature	T_{ch}	+150	°C
Storage temperature	T_{stg}	-55~+150	°C

EQUIVALENT CIRCUIT



MARKING



※1 Please use under heat dissipation conditions where the channel temperature does not reach 150°C.

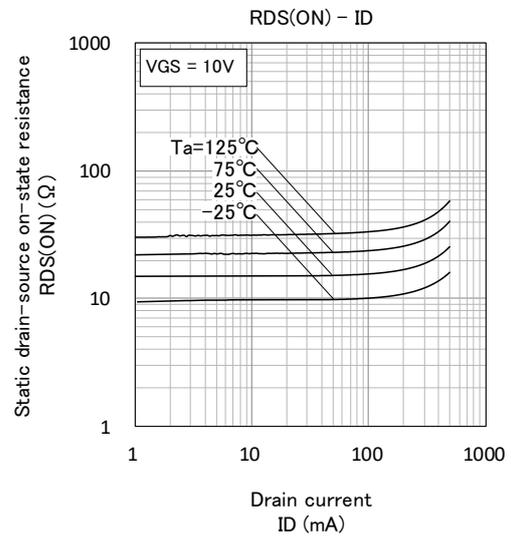
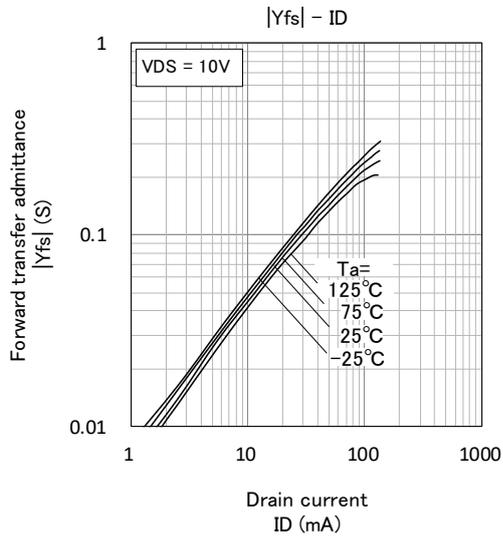
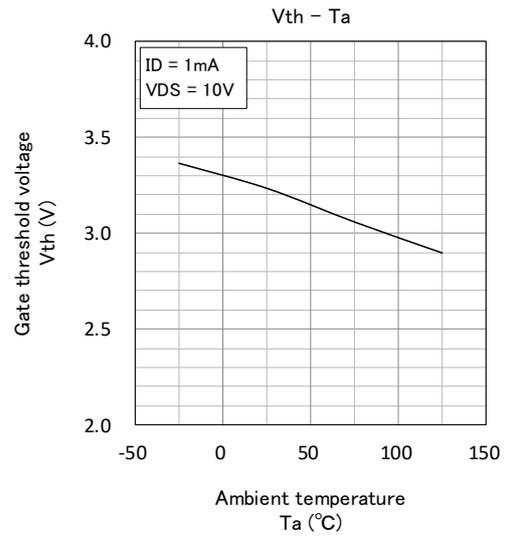
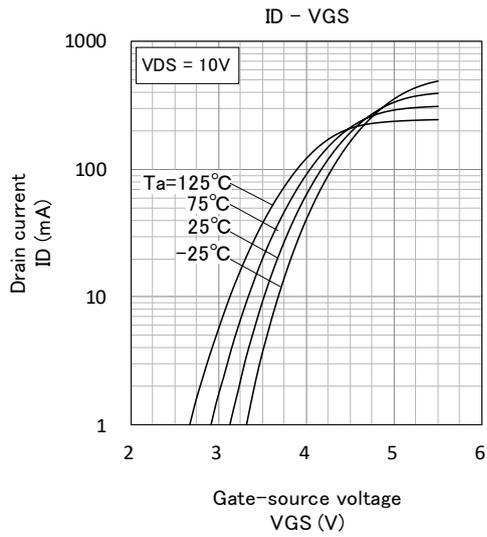
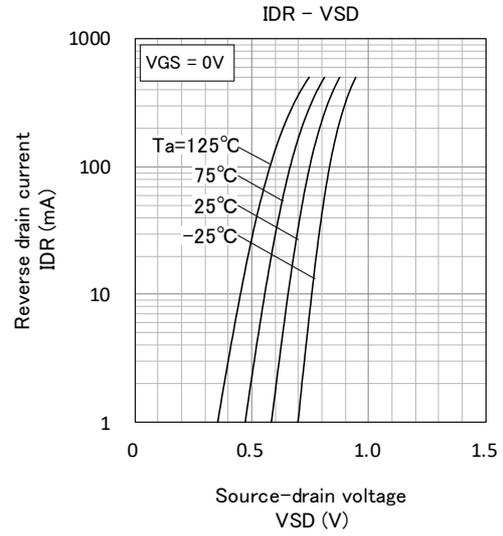
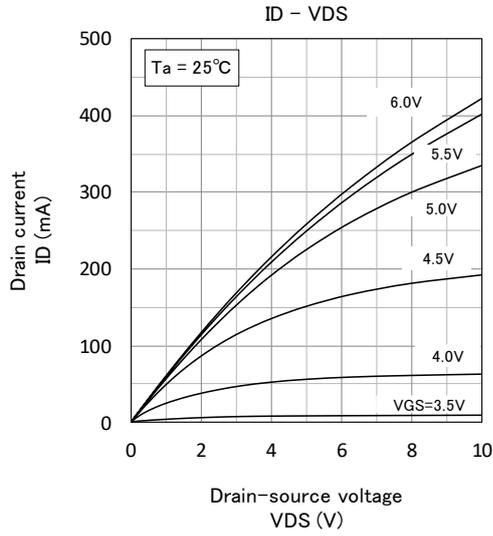
ELECTRICAL CHARACTERISTICS (Ta=25°C)

Parameter	Symbol	Test Condition	Limit			Unit
			MIN	TYP	MAX	
Drain-Source Breakdown Voltage	$V(BR)_{DSS}$	$I_D=250\mu A, V_{GS}=0V$	500	-	-	V
Gate-Source Leak current	I_{GSS}	$V_{GS}=\pm 30V, V_{DS}=0V$	-	-	± 10	μA
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=500V, V_{GS}=0V$	-	-	100	μA
Gate Threshold Voltage	V_{th}	$I_D=1mA, V_{DS}=10V$	2.0	-	4.0	V
Forward Transfer Admittance	$ Y_{fs} $	$V_{DS}=10V, I_D=0.1A$	100	-	-	mS
Static Drain-Source On-State Resistance	$R_{DS(ON)}$	$I_D=0.25A, V_{GS}=10V$	-	16	25	Ω
Input Capacitance	C_{iss}	$V_{DS}=10V, V_{GS}=0V, f=1MHz$	-	60	-	pF
Output Capacitance	C_{oss}		-	11	-	pF
Switching Time	t_{on}	$V_{DD}=10V, I_D=0.1A$	-	10	-	ns
	t_{off}	$V_{GS}=0\sim 10V$	-	60	-	ns

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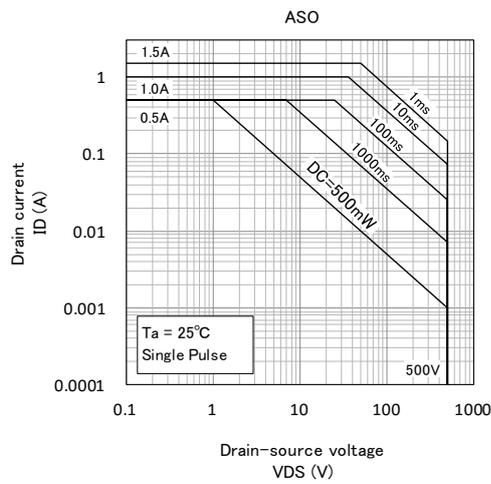
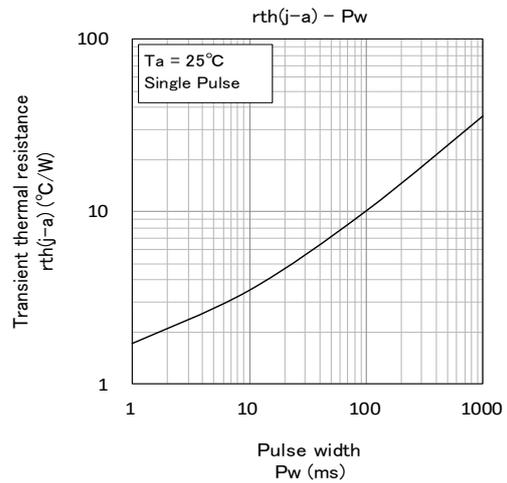
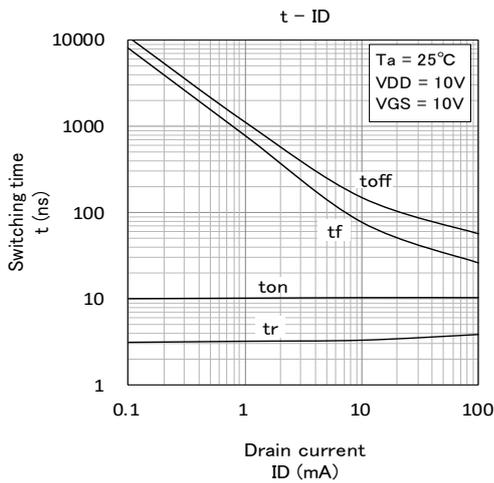
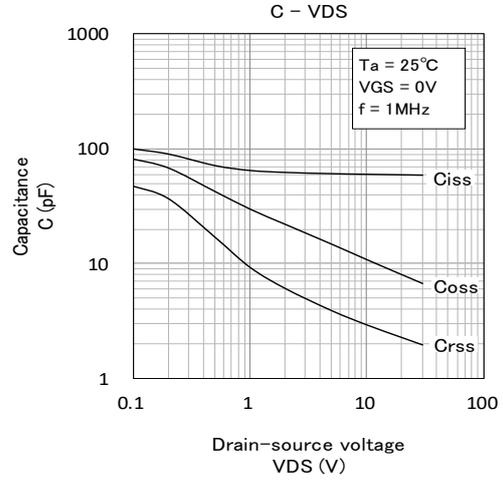
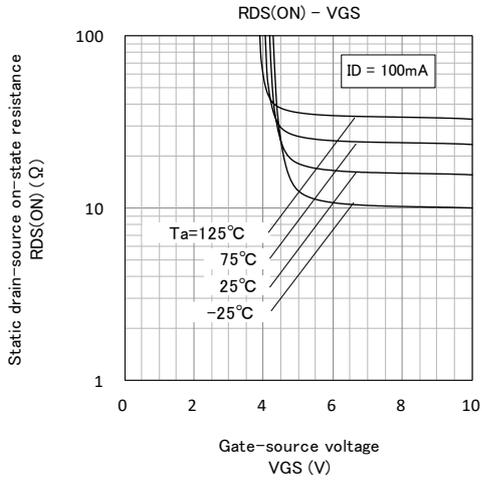
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TYPICAL CHARACTERISTICS



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