

RT3KGGM

Composite Transistor
For high speed switching
Silicon N-channel MOSFET

DESCRIPTION

RT3KGGM is a composite transistor built with two INK0103AX chips in SC-88 package.

FEATURE

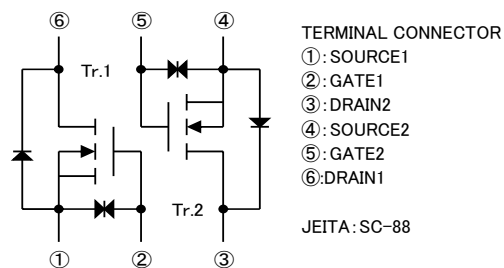
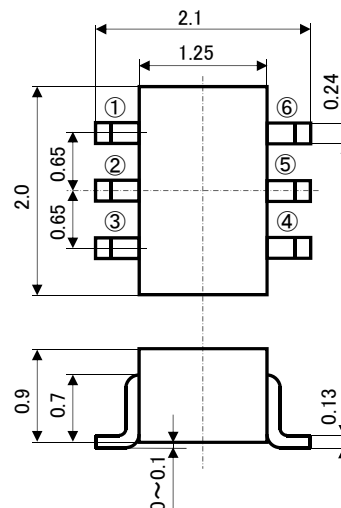
- Input impedance is high, and not necessary to consider a drive electric current.
- Drive voltage 1.8V
- Low on Resistance.
 - $R_{DS(ON)}=0.33\ \Omega$ (TYP) @ $I_D=0.5A$, $V_{GS}=4.5V$
 - $R_{DS(ON)}=0.46\ \Omega$ (TYP) @ $I_D=0.5A$, $V_{GS}=2.5V$
 - $R_{DS(ON)}=0.64\ \Omega$ (TYP) @ $I_D=0.3A$, $V_{GS}=1.8V$
- High speed switching.
- Small package for easy mounting.

APPLICATION

High speed switching , Analog switching

OUTLINE DRAWING

Unit:mm



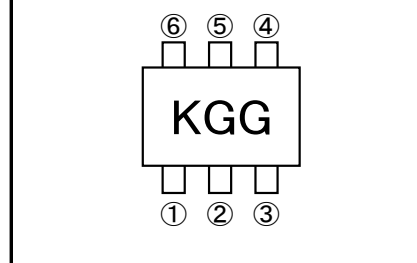
MAXIMUM RATING (Ta=25°C) (Tr1,Tr2 Common)

SYMBOL	PARAMETER	RATING	UNIT
V _{DSS}	Drain-source voltage	20	V
V _{GSS}	Gate-source voltage	±8	V
I _D	Drain current(DC)	0.6	A
I _{DP}	Drain current(Pulse)	2.2 ^{※1}	A
P _D	Total power dissipation	150	mW
		220 ^{※2}	mW
T _{ch}	Channel temperature	+150	°C
T _{stg}	Range of Storage temperature	-55~+150	°C

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

※2: Package mounted on glass-epoxy substrate(19mm × 45mm × 1mm).

MARKING



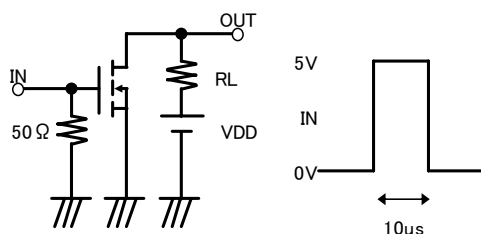
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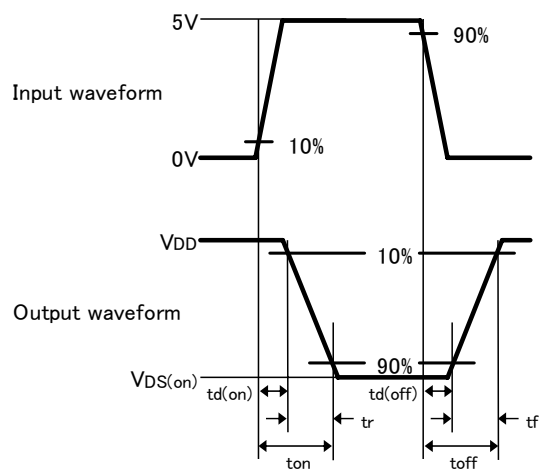
ELECTRICAL CHARACTERISTICS (Ta=25°C) (Tr1,Tr2 Common)

SYMBOL	Parameter	Test conditions	Limits			Unit
			Min	Typ	Max	
V(BR)DSS	Drain-source breakdown voltage	Id=100μA, VGS=0V	20	-	-	V
IGSS	Gate-source leak current	VGS=±8V, VDS=0V	-	-	±10	μA
IDSS	Zero gate voltage drain current	VDS=20V, VGS=0V	-	-	1.0	μA
Vth	Gate threshold voltage	Id=250μA, VDS=VGS	0.5	-	1.0	V
Yfs	Forward transfer admittance	VDS=5V, Id=0.5A	-	1.4	-	S
RDS(ON)	Static drain-source on-state resistance	Id=0.5A, VGS=4.5V	-	0.33	-	Ω
		Id=0.5A, VGS=2.5V	-	0.46	-	
		Id=0.3A, VGS=1.8V	-	0.64	-	
Ciss	Input capacitance	VDS=5V, VGS=0V, f=1MHz	-	64	-	pF
Coss	Output capacitance		-	16	-	pF
ton	Switching time	VDD=5V, Id=0.5A	-	22	-	ns
Toff		VGS=0~5V	-	30	-	

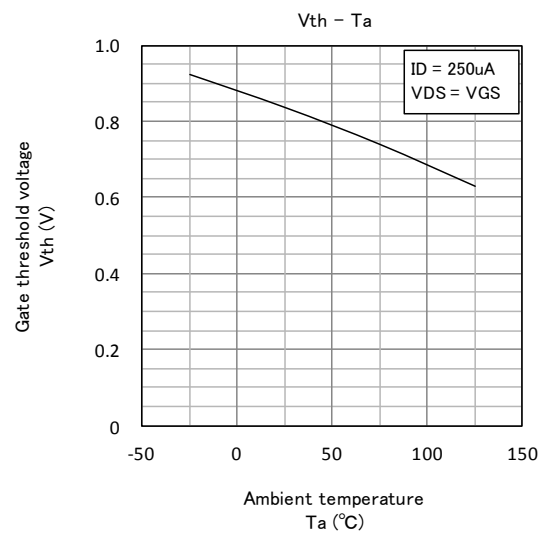
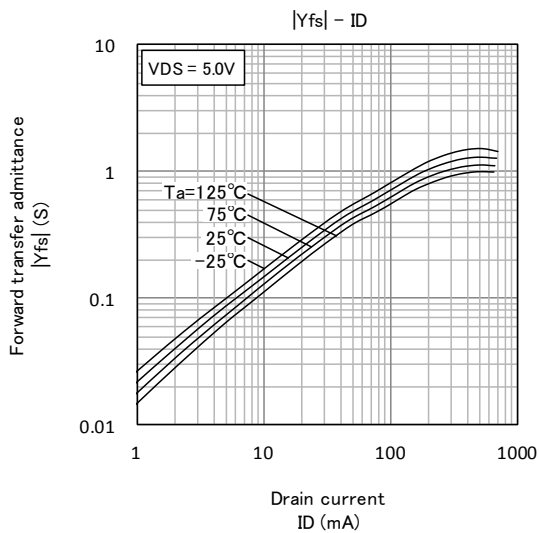
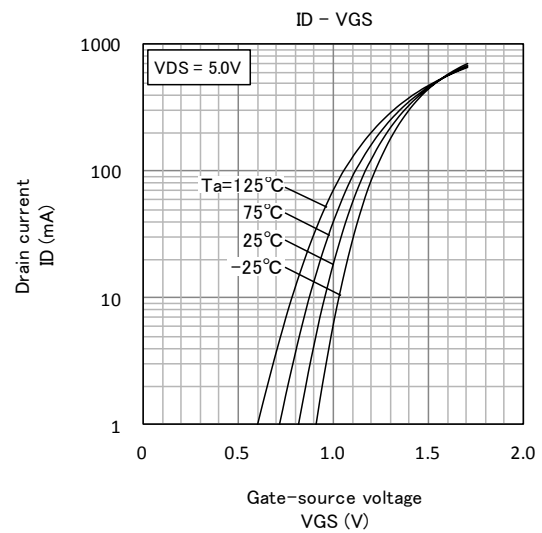
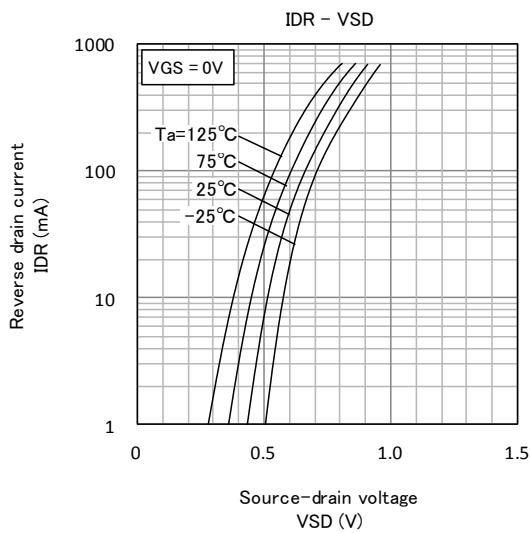
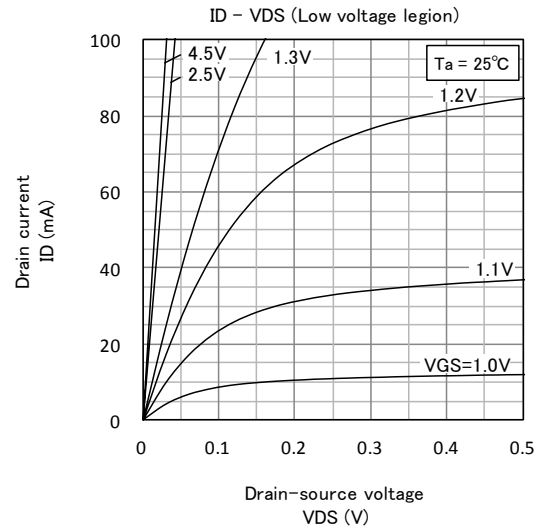
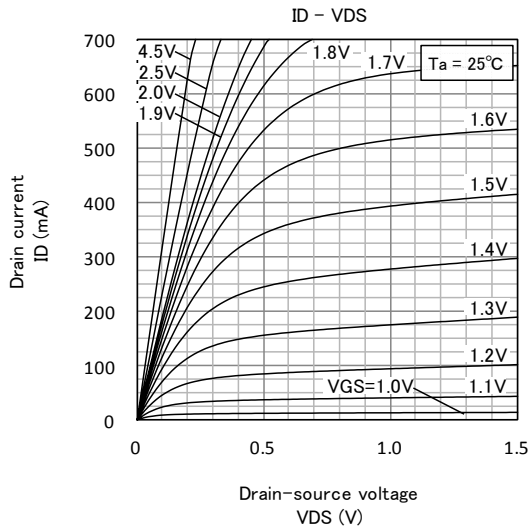
Switching time test condition



Duty \leq 1%
Input : tr, tf < 10ns
VDD = 5V
Common source
Ta = 25°C

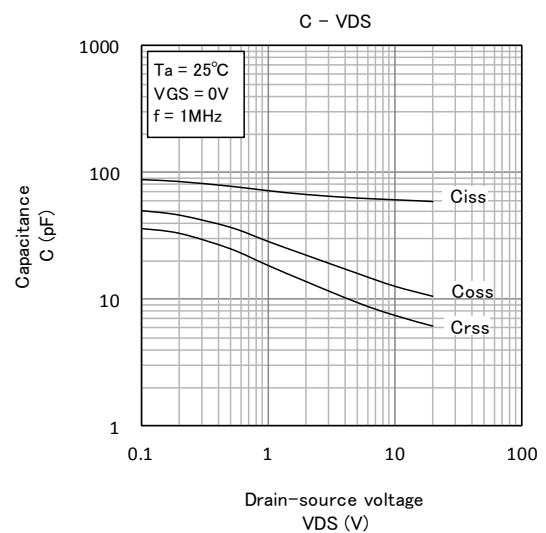
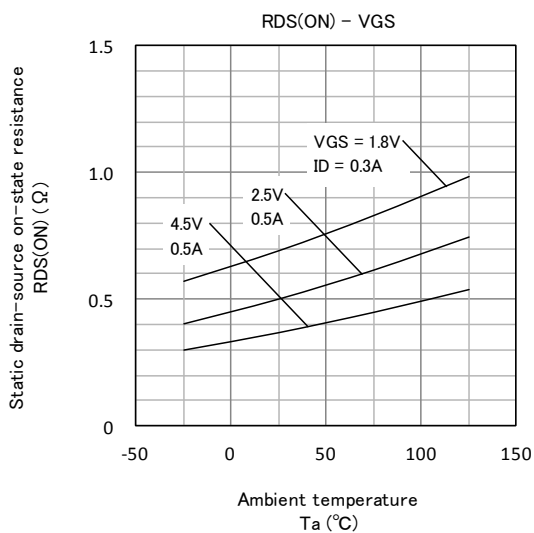
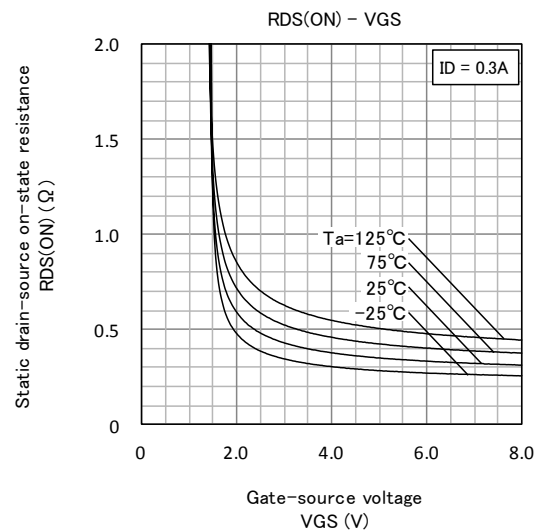
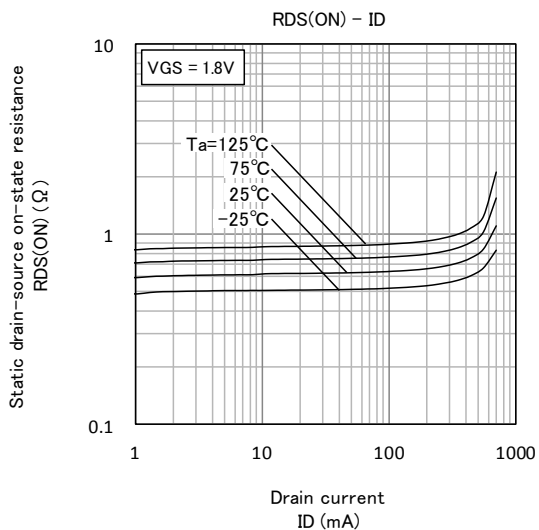
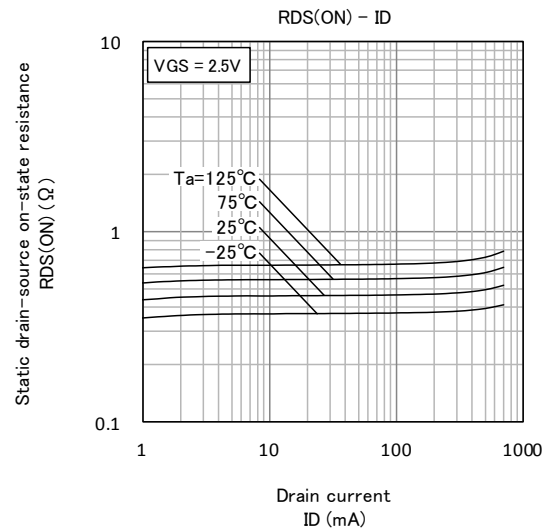
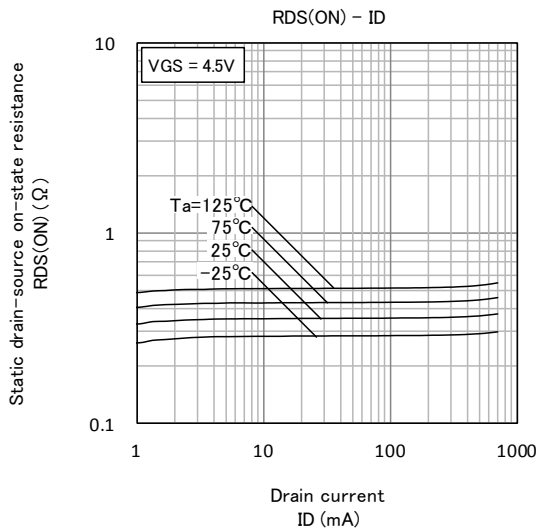


TYPICAL CHARACTERISTICS



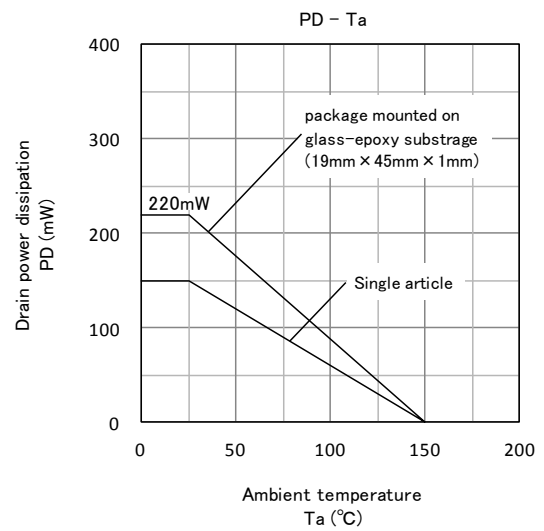
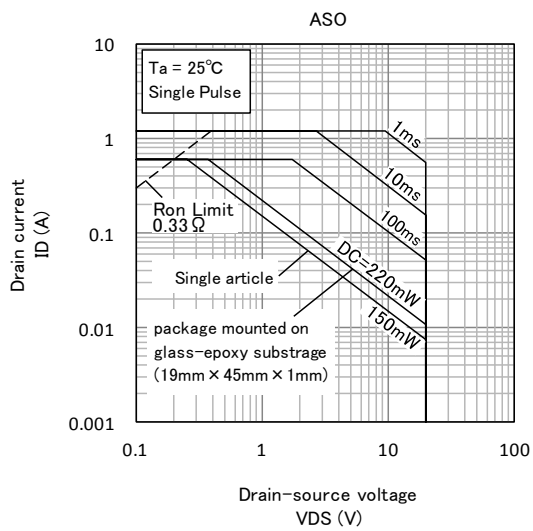
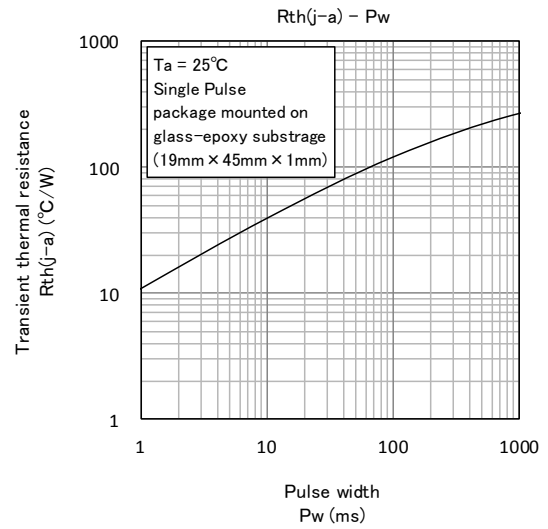
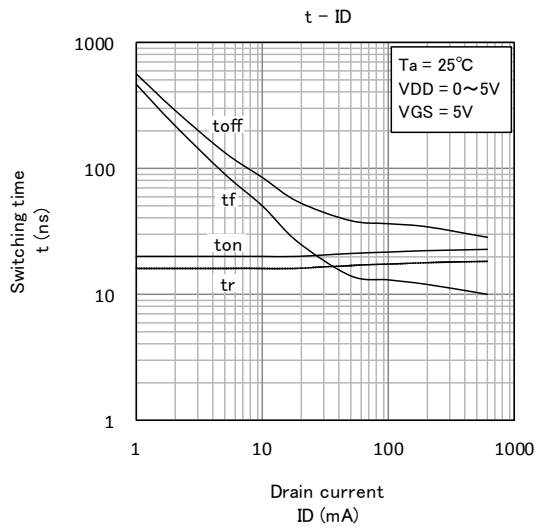
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