Composite Transistor For high speed switching Silicon N-channel MOSFET

DESCRIPTION

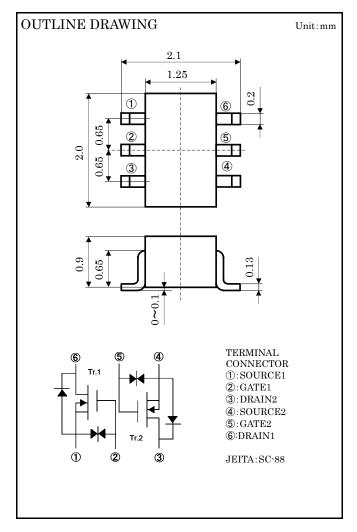
RT3K11M is a composite transistor built with two INK0001AX chips in SC-88 package.

FEATURE

- •Input impedance is high, and not necessary to consider a drive electric current.
- •Vth is low, and drive by low voltage is possible. Vth= $0.6 \sim 1.2 \text{V}$
- •Low on Resistance. Ron= $3.5\,\Omega\,(TYP)$
- ·High speed switching.
- *Small package for easy mounting.

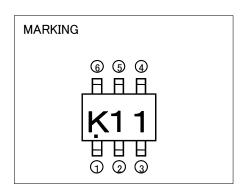
APPLICATION

high speed switching, Analog switching



MAXIMUM RATING (Ta=25°C)

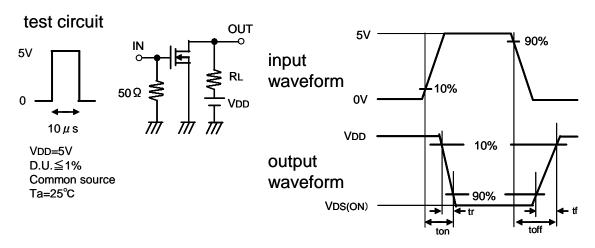
SYMBOL	PARAMETER	RATING	UNIT	
V_{DSS}	Drain-source voltage	50	V	
VGSS	Gate-source voltage	±8	V	
ID	Drain current	100	mA	
P_{D}	Total power dissipation(Ta=25°C)	150	mW	
T_{ch}	Channel temperature	+125	°C	
T_{stg}	Range of Storage temperature	-55 ~ +125	°C	



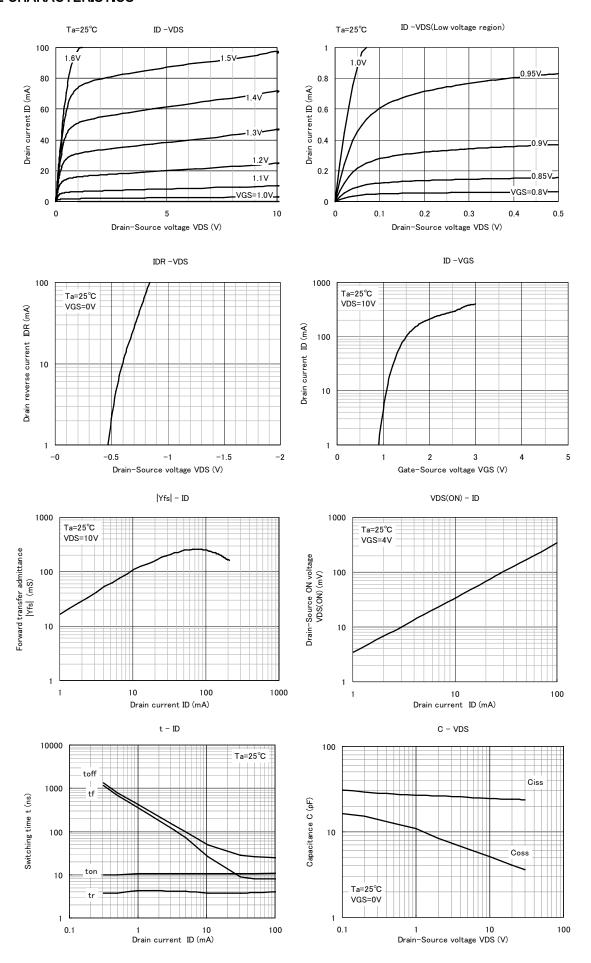
ELECTRICAL CHARACTERISTICS (Ta=25°C)

Symbol	Parameter	Test conditions	Limits			Unit
			Min	Typ	Max	Oilli
V(BR)DSS	Drain-source breakdown voltage	I _D =100 μ A, V _{GS} =0V	50	1	_	٧
I gss	Gate-source leak current	$V_{GS}=\pm 5V, V_{DS}=0V$	-	_	±0.5	μΑ
I DSS	Zero gate voltage drain current	V _{DS} =50V ,V _{GS} =0V	ı	1	50	μΑ
V_{th}	Gate threshold voltage	$I_D=250 \mu A, V_{DS}=V_{GS}$	0.6	-	1.2	V
Yfs	Forward transfer admittance	V _{DS} =10V, I _D =0.1A	-	250	-	mS
RDS(ON)	Static drain-source on-state resistance	I _D =100mA, V _{GS} =4.0V	-	3.5	-	Ω
Ciss	Input capacitance	V _{DS} =10V, V _{GS} =0V,f=1MHz	-	24	-	pF
Coss	Output capacitance	V _{DS} =10V, V _{GS} =0V,f=1MHz	-	5	-	pF
ton	- Switching time	$V_{DD}=5V$, $I_{D}=10mA$ $V_{GS}=0\sim5V$	-	11	-	ns
toff			-	50	-	

Switching time test condition



TYPICAL CHARACTERISTICS





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