

RT3K33M

Composite Transistor
For high speed switching
Silicon N-channel MOSFET

DESCRIPTION

RT3K33M is a composite transistor built with two INK0003AX chips in SC-88 package.

FEATURE

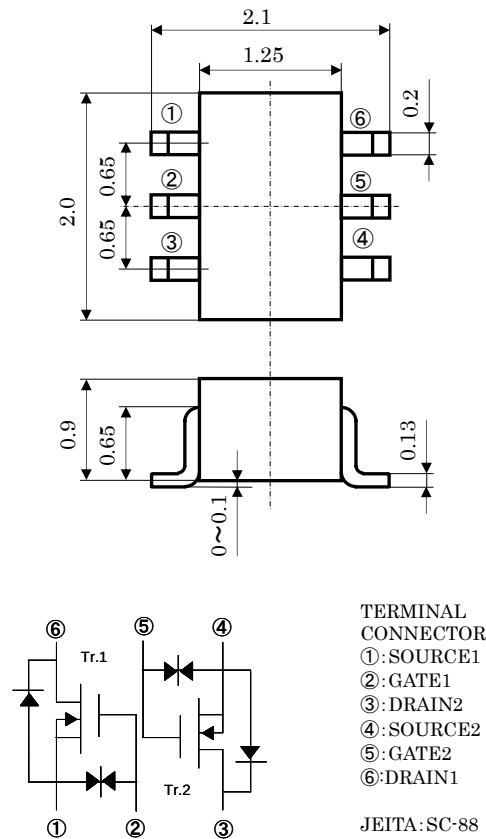
- Input impedance is high, and not necessary to consider a drive electric current.
- V_{th} is low, and drive by low voltage is possible. $V_{th}=0.6\sim 1.2V$
- Low on Resistance. $R_{on}=0.9\Omega$ (TYP)
- High speed switching.
- Small package for easy mounting.

APPLICATION

high speed switching , Analog switching

OUTLINE DRAWING

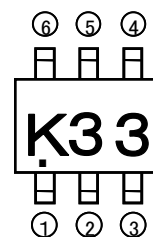
Unit:mm



MAXIMUM RATING ($T_a=25^{\circ}C$)

SYMBOL	PARAMETER	RATING	UNIT
V_{DSS}	Drain-source voltage	20	V
V_{GSS}	Gate-source voltage	± 8	V
I_D	Drain current	200	mA
P_D	Total power dissipation ($T_a=25^{\circ}C$)	150	mW
T_{ch}	Channel temperature	+125	$^{\circ}C$
T_{stg}	Range of Storage temperature	$-55\sim +125$	$^{\circ}C$

MARKING



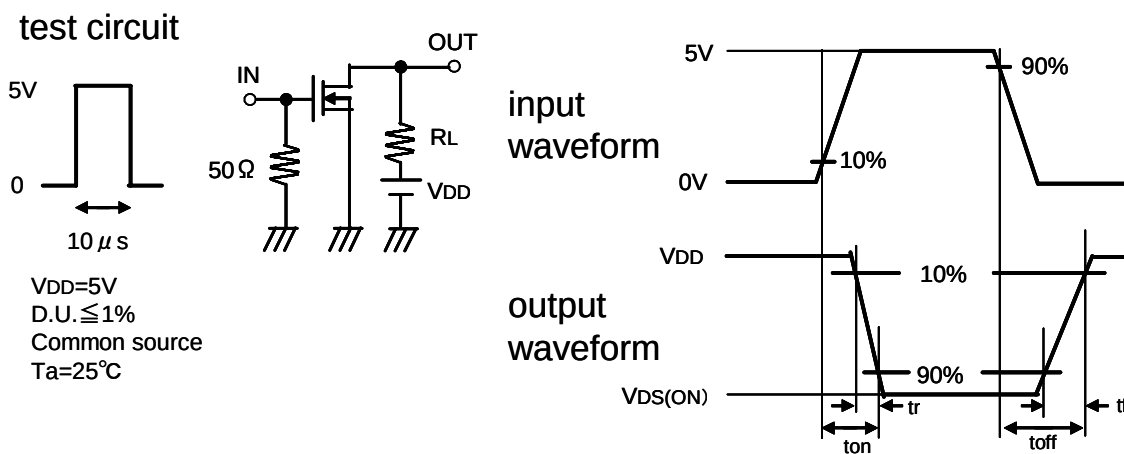
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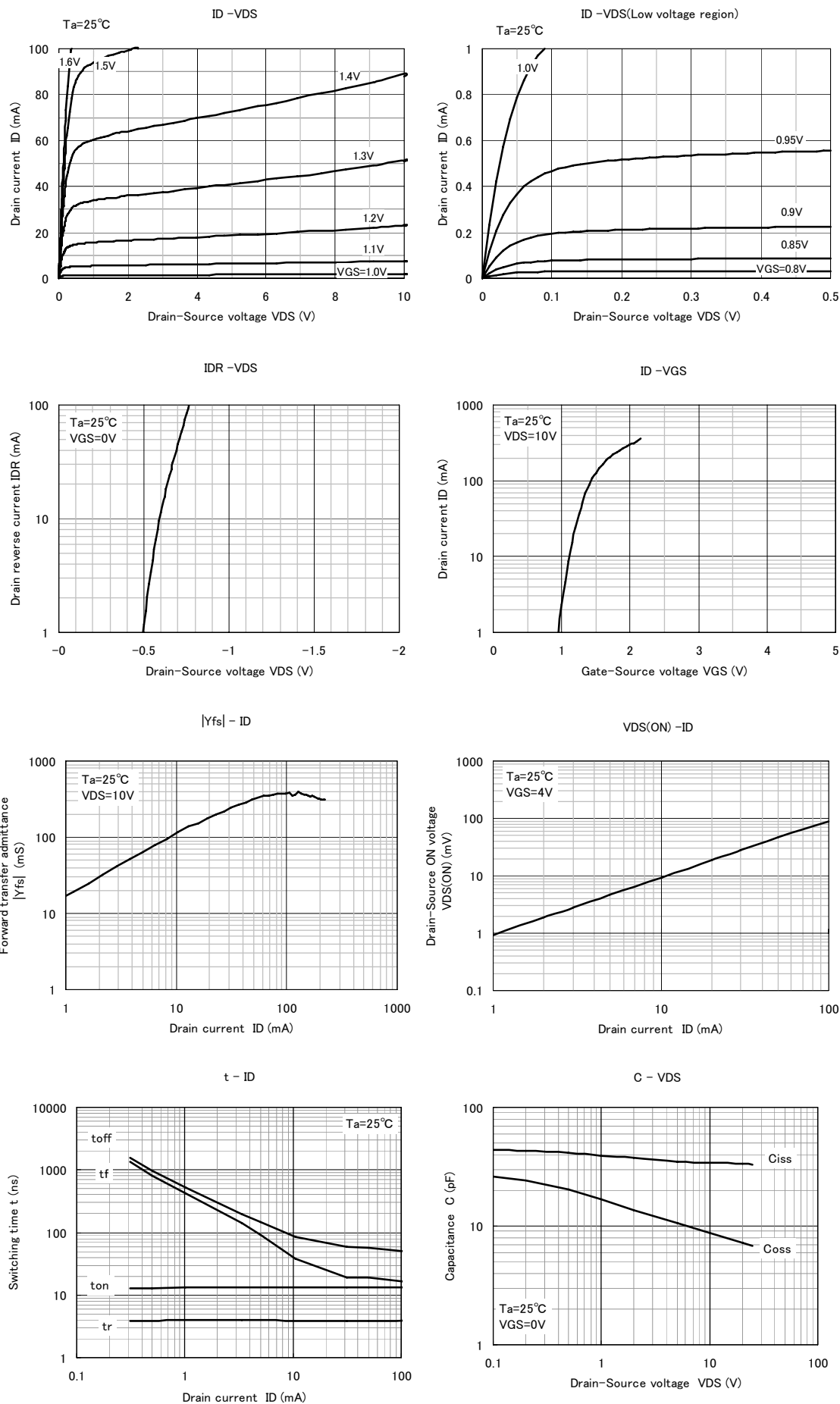
ELECTRICAL CHARACTERISTICS (Ta=25°C)

Symbol	Parameter	Test conditions	Limits			Unit
			Min	Typ	Max	
$V_{(BR)DSS}$	Drain-source breakdown voltage	$I_D=100\mu A, V_{GS}=0V$	20	—	—	V
I_{GSS}	Gate-source leak current	$V_{GS}=\pm 5V, V_{DS}=0V$	—	—	± 0.5	μA
I_{DSS}	Zero gate voltage drain current	$V_{DS}=20V, V_{GS}=0V$	—	—	50	μA
V_{th}	Gate threshold voltage	$I_D=250\mu A, V_{DS}=V_{GS}$	0.6	—	1.2	V
$ Y_{fs} $	Forward transfer admittance	$V_{DS}=10V, I_D=0.1A$	—	300	—	mS
$R_{DS(ON)}$	Static drain-source on-state resistance	$I_D=100mA, V_{GS}=4.0V$	—	0.9	—	Ω
C_{iss}	Input capacitance	$V_{DS}=10V, V_{GS}=0V, f=1MHz$	—	34	—	pF
C_{oss}	Output capacitance	$V_{DS}=10V, V_{GS}=0V, f=1MHz$	—	8.5	—	pF
t_{ON}	Switching time	$V_{DD}=5V, I_D=10mA$	—	14	—	ns
t_{OFF}		$V_{GS}=0\sim 5V$	—	85	—	

Switching time test condition



TYPICAL CHARACTERISTICS





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