

**2SK2091**

Impedance Converter Applications

Applications

- Low-frequency general-purpose amplifier applications.
- Impedance conversion.
- Infrared sensor.

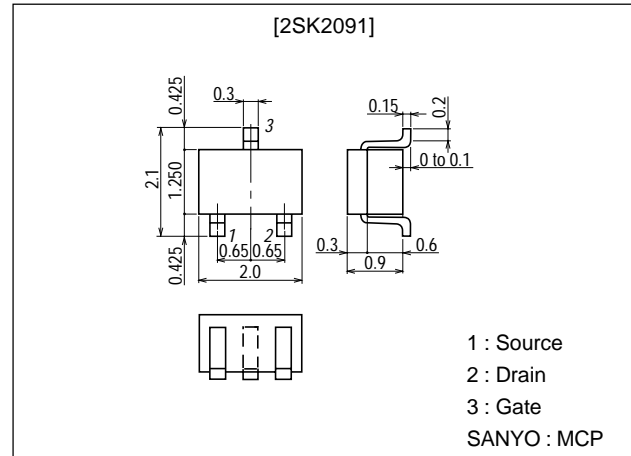
Features

- Small I_{GSS} .
- Small C_{iss} .
- Ultrasmall-sized package permitting 2SK2091-applied sets to be made smaller and slimmer.

Package Dimensions

unit:mm

2058



Specifications

Absolute Maximum Ratings at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings	Unit
Drain-to-Source Voltage	V_{DSX}		30	V
Gate-to-Drain Voltage	V_{GDS}		-30	V
Gate Current	I_G		10	mA
Drain Current	I_D		5	mA
Allowable Power Dissipation	P_D		150	mW
Junction Temperature	T_J		150	$^\circ\text{C}$
Storage Temperature	T_{stg}		-55 to +150	$^\circ\text{C}$

Electrical Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Gate-to-Drain Breakdown Voltage	$V_{(BR)GDS}$	$I_G = -10\mu\text{A}$, $V_{DS} = 0$	-30			V
Zero-Gate Voltage Drain Current	I_{DSS}	$V_{DS} = 10\text{V}$, $V_{GS} = 0$	0.4*		1.1*	mA
Gate-to-Source Leakage Current	I_{GSS}	$V_{GS} = -20\text{V}$, $V_{DS} = 0$			-1.0	nA
Cutoff Voltage	$V_{GS(off)}$	$V_{DS} = 10\text{V}$, $I_D = 1\mu\text{A}$	-0.3	-0.75	-1.5	V
Forward Transfer Admittance	$ y_{fs} $	$V_{DS} = 10\text{V}$, $V_{GS} = 0$, $f = 1\text{kHz}$	1.1	1.8		mS

* : The 2SK2091 is classified by I_{DSS} as follows : (unit : mA).

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0.4	14	0.8	0.6	15	1.1
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Note) Marking : H

 I_{DSS} rank : 14, 15

For CP package version, use the 2SK2076.

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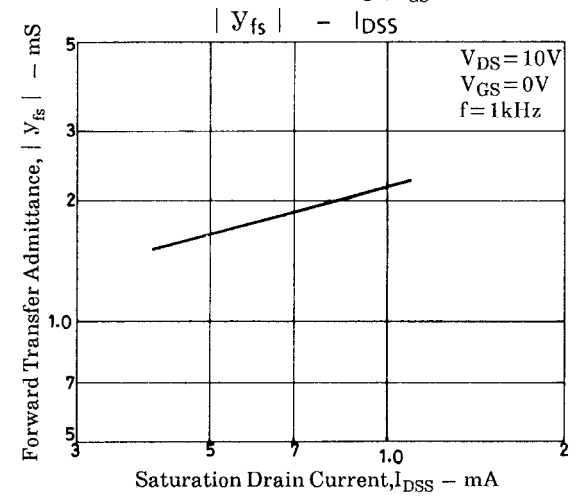
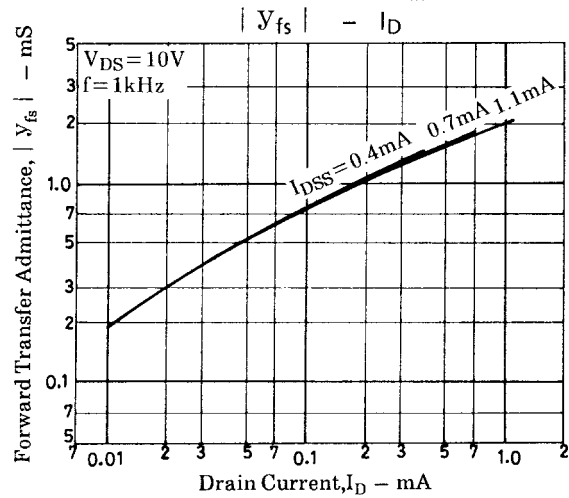
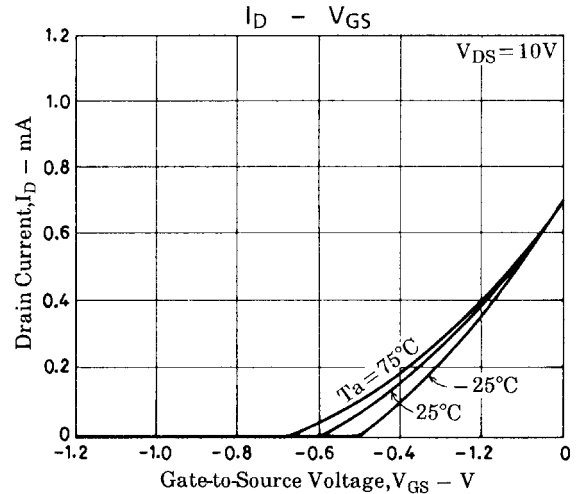
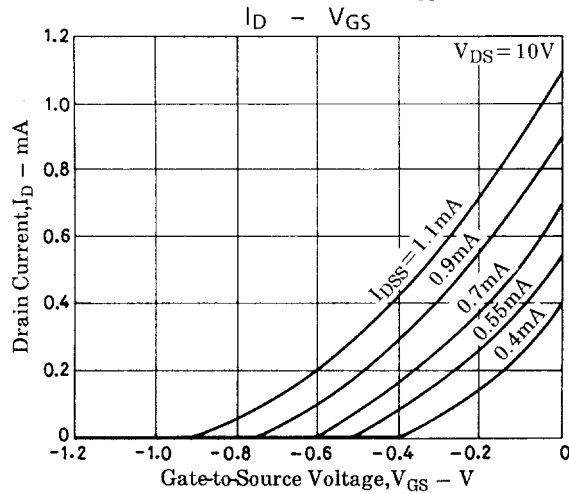
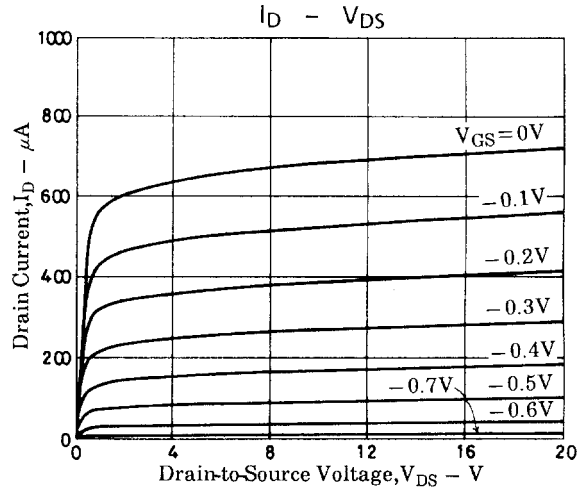
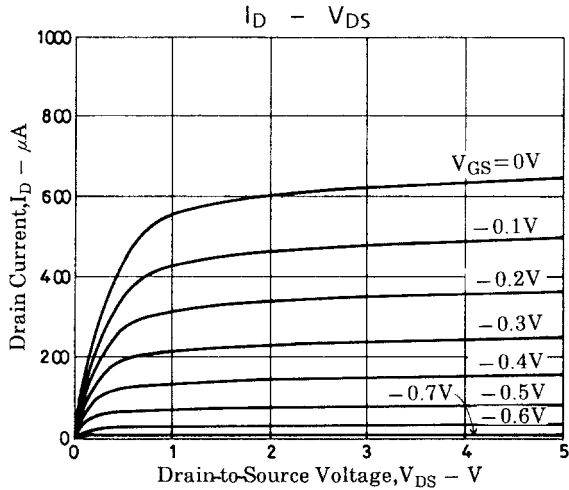
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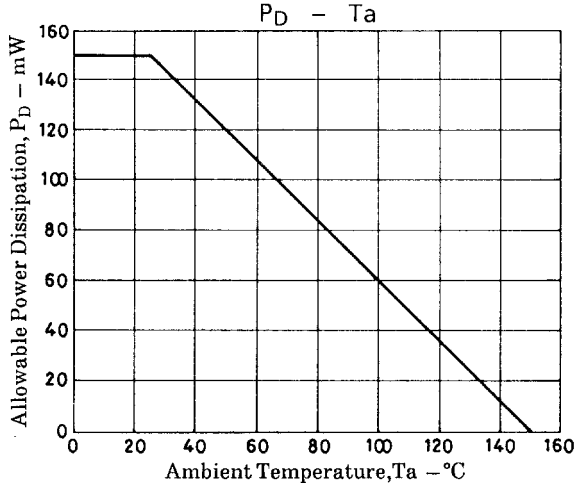
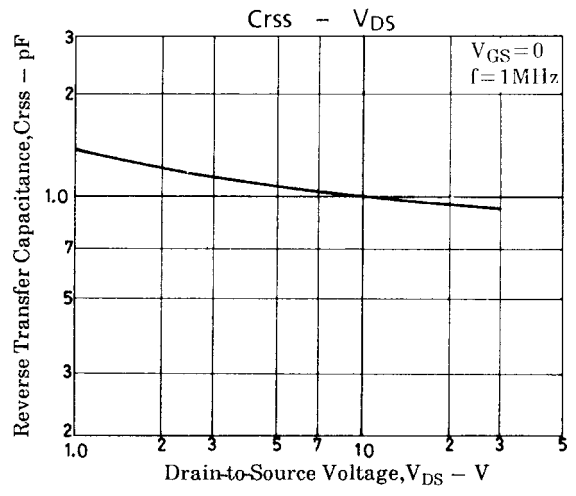
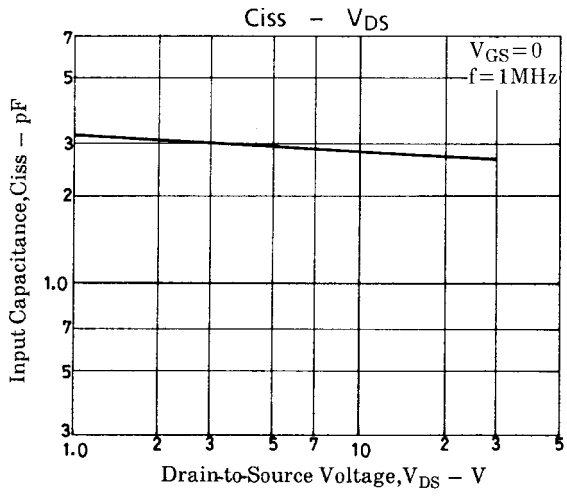
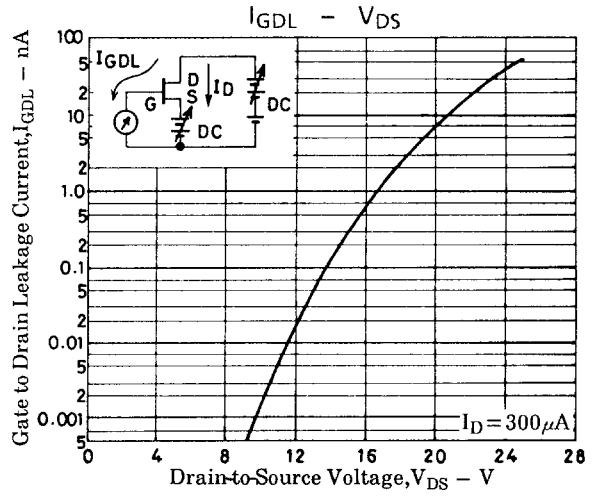
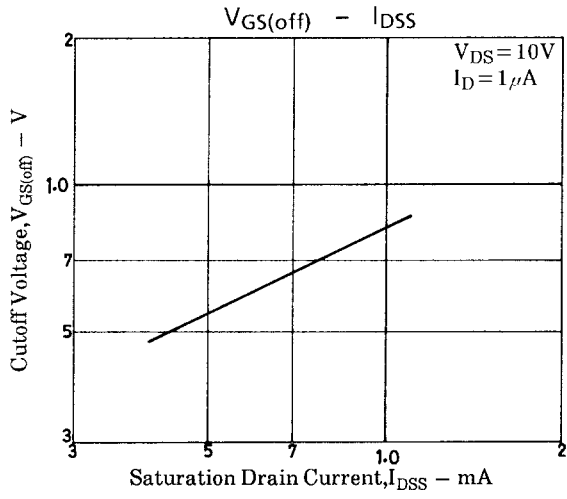
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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Input Capacitance	C_{iss}	$V_{DS}=10V, V_{GS}=0, f=1MHz$		2.9		pF
Reverse Transfer Capacitance	C_{rss}	$V_{DS}=10V, V_{GS}=0, f=1MHz$		1.1		pF



2SK2091



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