

JUNCTION FIELD EFFECT TRANSISTOR

2SK660

Phase-out/Discontinued

N-CHANNEL SILICON JUNCTION FIELD EFFECT TRANSISTOR FOR IMPEDANCE CONVERTER OF ECM

DESCRIPTION

The 2SK660 is suitable for converter of ECM.

FEATURES

- Compact package
- High forward transfer admittance
 $|y_{fs}| = 1200 \mu\text{S TYP.}$ ($V_{DS} = 5 \text{ V}$, $I_D = 0 \mu\text{A}$)
- Low capacitance
 $C_{iss} = 4.5 \text{ pF}$ ($V_{DS} = 5 \text{ V}$, $V_{GS} = 0 \text{ V}$, $f = 1 \text{ MHz}$)
- Includes diode and high resistance at G - S

ORDERING INFORMATION

PART NUMBER	PACKAGE
2SK660	SST

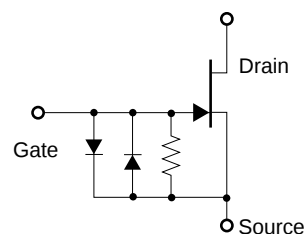
ABSOLUTE MAXIMUM RATINGS ($T_A = 25^\circ\text{C}$)

Drain to Source Voltage ^{Note}	V_{DSX}	20	V
Gate to Drain Voltage	V_{GDO}	-20	V
Drain Current	I_D	10	mA
Gate Current	I_G	10	mA
Total Power Dissipation	P_T	100	mW
Junction Temperature	T_J	125	$^\circ\text{C}$
Storage Temperature	T_{stg}	-55 to +125	$^\circ\text{C}$

Note $V_{GS} = -1.0 \text{ V}$

Remark Please take care of ESD (Electro Static Discharge) when you handle the device in this document.

EQUIVALENT CIRCUIT

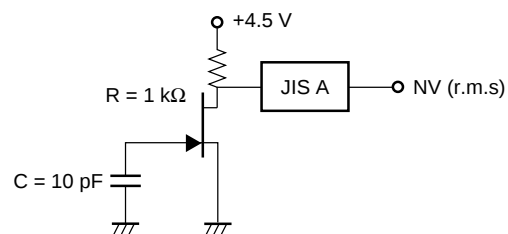


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Not all devices/types available in every country. Please check with local NEC representative for availability and additional information.

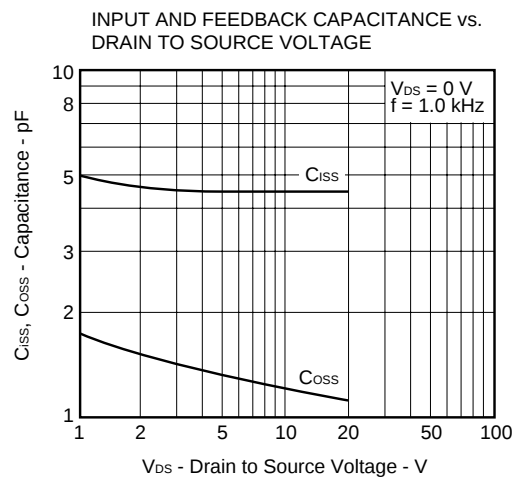
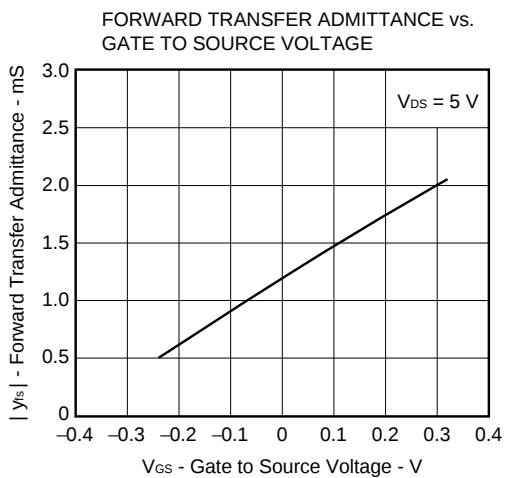
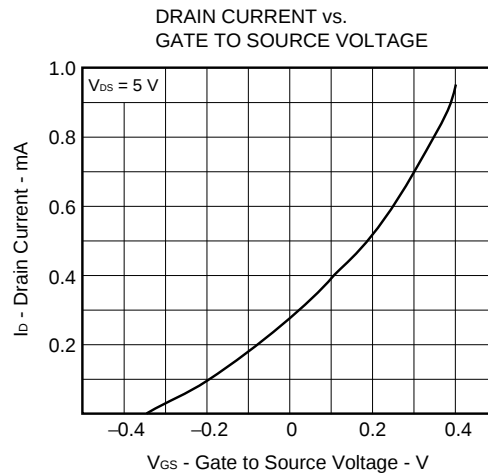
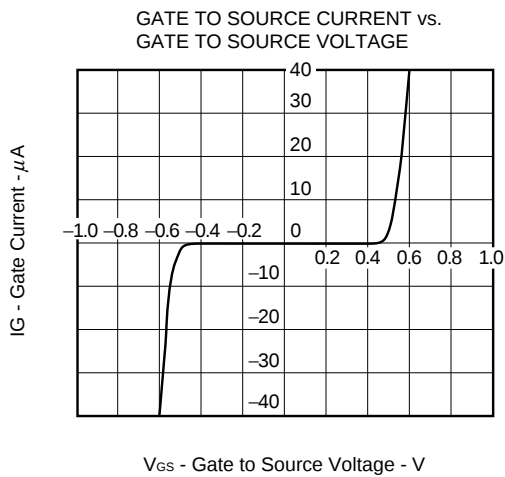
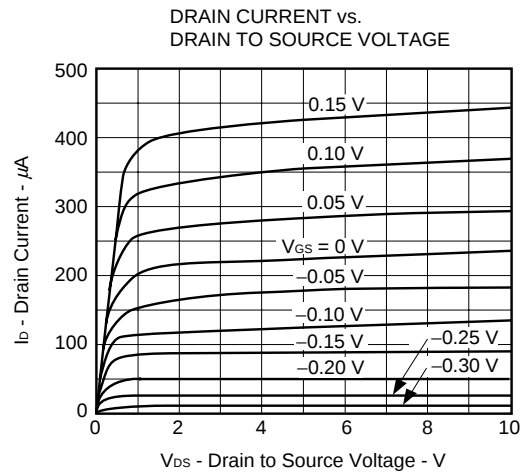
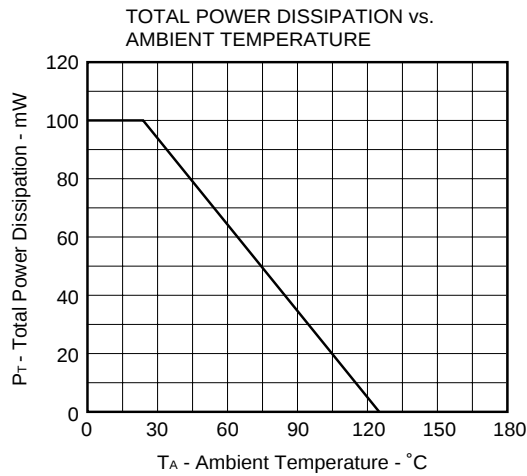
ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$)

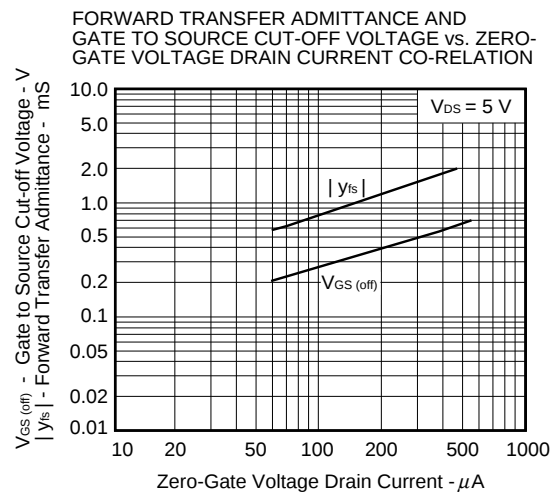
CHARACTERISTICS	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNIT
Zero Gate Voltage Drain Cut-off Current	I_{DSS}	$V_{DS} = 5.0\text{ V}, V_{GS} = 0\text{ V}$	60		500	μA
Gate Cut-off Voltage	$V_{GS(off)}$	$V_{DS} = 5.0\text{ V}, I_D = 1.0\text{ }\mu\text{A}$			-1.0	V
Forward Transfer Admittance	$ y_{fs1} $	$V_{DS} = 5.0\text{ V}, I_D = 30\text{ }\mu\text{A}, f = 1.0\text{ kHz}$	150			μS
Forward Transfer Admittance	$ y_{fs2} $	$V_{DS} = 5.0\text{ V}, V_{GS} = 0\text{ V}, f = 1.0\text{ kHz}$	150	1200		μS
Input Capacitance	C_{iss}	$V_{DS} = 5.0\text{ V}$ $V_{GS} = 0\text{ V}$ $f = 1.0\text{ MHz}$		4.5	6.0	pF
Output Capacitance	C_{oss}			1.5	3.0	pF
Reverse Transfer Capacitance	C_{rss}			1.2	3.0	pF
Noise Voltage	NV	See Test Circuit		1.0	3.0	μV

NOISE VOLTAGE TEST CIRCUIT

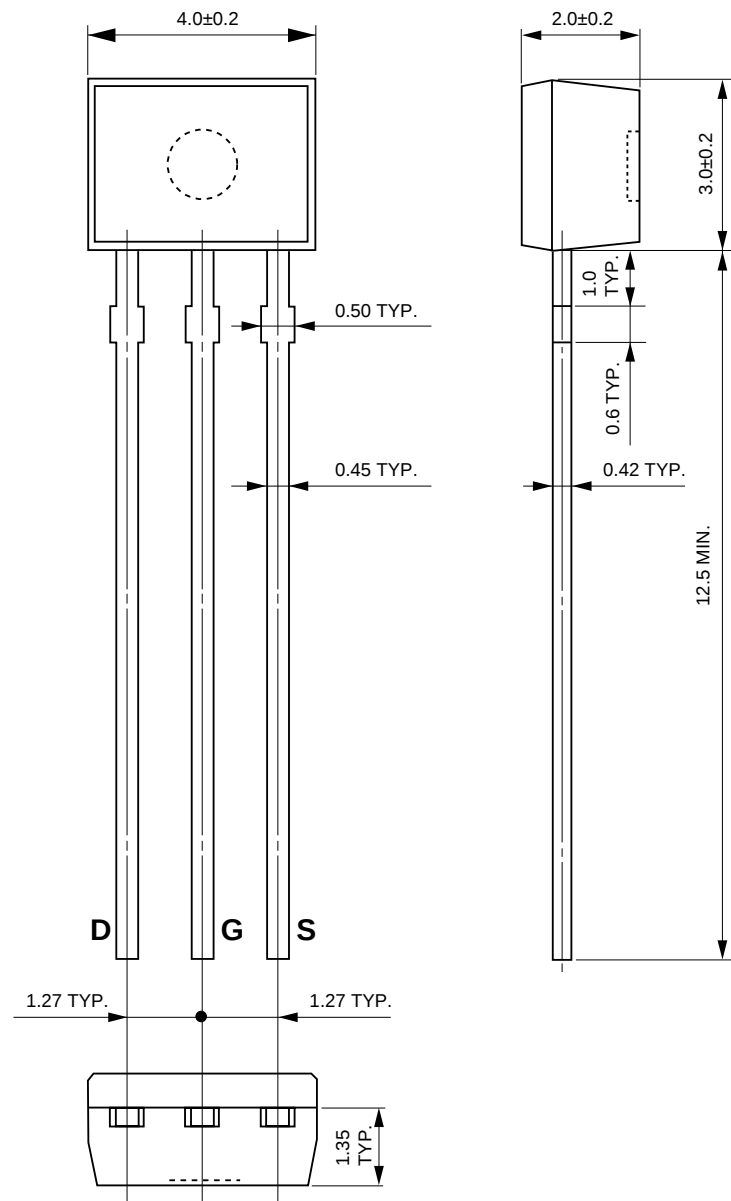


TYPICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$)





PACKAGE DRAWING (Unit: mm)



[MEMO]

[MEMO]

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