

JUNCTION FIELD EFFECT TRANSISTOR 2SK3717

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

DESCRIPTION

The 2SK3717 is suitable for converter of ECM.

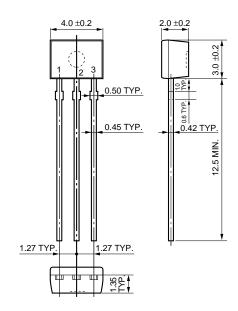
FEATURES

- · Compact package
- High forward transfer admittance
 1400 μS TYP. (Ibss = 250 μA)
- Includes diode and high resistance at G-S

ORDERING INFORMATION

PART NUMBER	PACKAGE
2SK3717	SC-72 (SST)

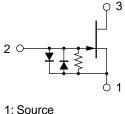
PACKAGE DRAWING (Unit: mm)



EQUIVALENT CIRCUIT

ABSOLUTE MAXIMUM RATINGS (TA = 25°C)

Drain to Source Voltage (VGS = −1.0 V)	VDSX	20	V
Gate to Drain Voltage	Vgdo	-20	V
Drain Current	lσ	10	mΑ
Gate Current	lg	10	mΑ
Total Power Dissipation	Рт	100	mW
Junction Temperature	T_{j}	125	°C
Storage Temperature	T _{stg}	-55 to +125	°C



1: Source

2: Gate 3: Drain

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

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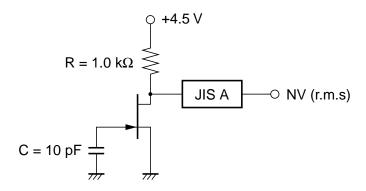
ELECTRICAL CHARACTERISTICS (TA = 25°C)

CHARACTERISTICS	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNIT
Zero Gate Voltage Drain Cut-off Current	IDSS	V _{DS} = 5.0 V, V _{GS} = 0 V	150	250	430	μΑ
Gate Cut-off Voltage	V _{GS(off)}	$V_{DS} = 5.0 \text{ V}, I_{D} = 1.0 \mu A$		-0.4	-1.0	٧
Forward Transfer Admittance	y fs1	$V_{DS} = 5.0 \text{ V}, I_{D} = 30 \ \mu\text{A}, f = 1.0 \text{ kHz}$	150	440		μS
	y fs2	V _{DS} = 5.0 V, V _{GS} = 0 V, f = 1.0 kHz	600	1400		μS
Input Capacitance	Ciss	V _{DS} = 5.0 V, V _{GS} = 0 V, f = 1.0 MHz		3.9		pF
Noise Voltage	NV	Refer to NOISE VOLTAGE TEST		1.3	3.0	μV
		CIRCUIT				

IDSS CLASSIFICATION

MARKING	F	Н	J
Ioss (μA)	150 to 240	210 to 350	320 to 430

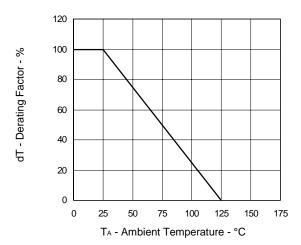
NOISE VOLTAGE TEST CIRCUIT



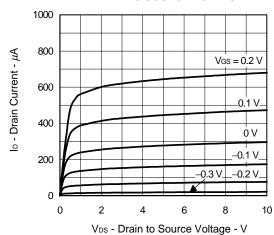
los - Gate to Source Current - μA

TYPICAL CHARACTERISTICS (TA = 25°C)

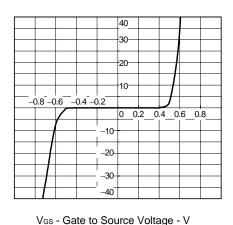
DRAIN FACTOR OF POWER DISSIPATION



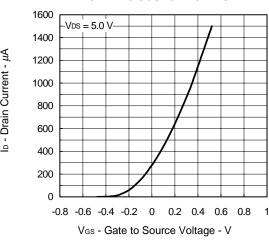
DRAIN CURRENT vs. DRAIN TO SOURCE VOLTAGE



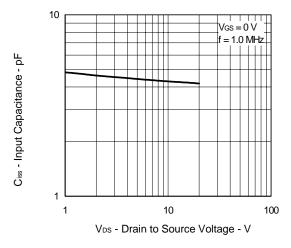
GATE TO SOURCE CURRENT vs. GATE TO SOURCE VOLTAGE



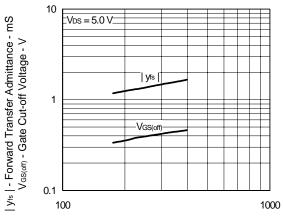
DRAIN CURRENT vs.
GATE TO SOURCE VOLTAGE



INPUT CAPACITANCE vs. DRAIN TO SOURCE VOLTAGE



FORWARD TRANSFER ADMITTANCE AND GATE CUT-OFF VOLTAGE vs. ZERO GATE VOLTAGE DRAIN CURRENT



IDSS - Zero Gate Voltage Drain Current - μ A

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