

To our customers,

Old Company Name in Catalogs and Other Documents

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Renesas Electronics website: <http://www.renesas.com>

April 1st, 2010
Renesas Electronics Corporation

Issued by: Renesas Electronics Corporation (<http://www.renesas.com>)

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JUNCTION FIELD EFFECT TRANSISTORS

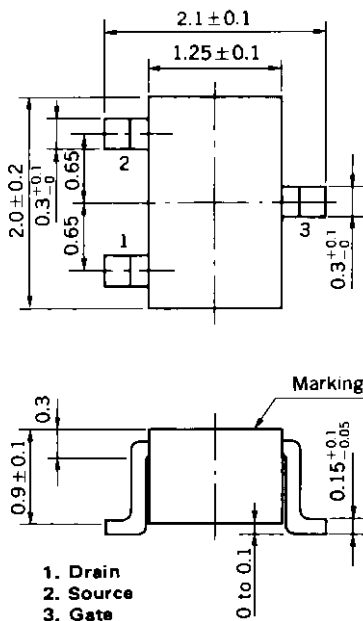
2SK853, 2SK853A

AF & RF AMPLIFIER

N-CHANNEL SILICON JUNCTION FIELD EFFECT TRANSISTOR

PACKAGE DIMENSIONS

in millimeters



DESCRIPTION

The 2SK853, 2SK853A are designed for hybrid IC which is designed for use in analog-switch, variable-resistor, RF amplifier and AF amplifier.

FEATURE

- Micro package.

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

Maximum Voltages and Currents		2SK853	2SK853A	
Gate to Drain Voltage	V_{GDO}	-30	-50	V
Gate to Source Voltage	V_{GSO}	-30	-50	V
Drain to Source Voltage ($V_{GS} = -5.0\text{ V}$)	V_{DSX}	30		V
Drain Current	I_D	20		mA
Gate Current	I_G	10		mA
Maximum Power Dissipation ($T_a = 25^\circ\text{C}$)				
Total Power Dissipation	P_T	150		mW
Maximum Temperatures				
Storage Temperature	T_{stg}	-55 to +150		$^\circ\text{C}$
Junction Temperature	T_j	150		$^\circ\text{C}$

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

CHARACTERISTIC	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Gate Cutoff Current	I_{GSS}			-10	nA	$V_{GS} = -30\text{ V}, V_{DS} = 0$
Zero-Gate Voltage Drain Current	I_{DSS}	0.5	2.5	12	mA	$V_{DS} = 5.0\text{ V}, V_{GS} = 0$
Gate to Source Cutoff Voltage	$V_{GS(off)}$	-0.25	-1.1	-4.5	V	$V_{DS} = 5.0\text{ V}, I_D = 10\text{ }\mu\text{A}$
Forward Transfer Admittance	$ Y_{fs} _1$	1.5	2.1		mS	$V_{DS} = 5.0\text{ V}, I_D = 0.5\text{ mA}, f = 1.0\text{ kHz}$
Forward Transfer Admittance	$ Y_{fs} _2$	1.5	4.1		mS	$V_{DS} = 5.0\text{ V}, V_{GS} = 0, f = 1.0\text{ kHz}$
Input Capacitance	C_{iss}		4.1		pF	$V_{DS} = 10\text{ V}, V_{GS} = 0, f = 1.0\text{ MHz}$
Feedback Capacitance	C_{rss}		0.9		pF	$V_{DS} = 10\text{ V}, V_{GS} = 0, f = 1.0\text{ MHz}$

I_{DSS} Classification

Marking	2SK853	K4	K5	K6	K7
	2SK853A	K24	K25	K26	K27
$I_{DSS}(\text{mA})$		0.5 to 1.5	1.0 to 3.0	2.0 to 6.0	4.0 to 12

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

