

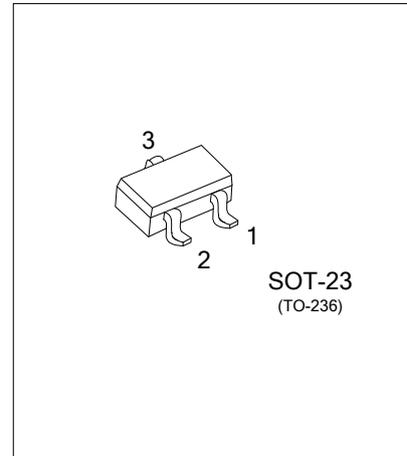


2SK545

Preliminary

JFET

IMPEDANCE CONVERTER APPLICATIONS



DESCRIPTION

The UTC **2SK545** is an N-channel Junction field effect transistor. It uses UTC's advanced technology to provide customers low C_{iss} and low I_{GSS} .

The UTC **2SK545** is suitable for infrared sensor and impedance converter applications.

FEATURES

- * Low Input Capacitance
- * Low Gate-Source Leakage Current

ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
2SK545L-xx-AE3-R	2SK545G-xx-AE3-R	SOT-23	D	S	G	Tape Reel

<p>2SK545L-xx-AE3-R</p> <p>(1) Packing Type (2) Package Type (3) Rank (4) Halogen Free</p>	<p>(1) R: Tape Reel (2) AE3: SOT-23 (3) xx: refer to Classification of I_{DSS} (4) G: Halogen Free, L: Lead Free</p>
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MARKING



■ ABSOLUTE MAXIMUM RATINGS ($T_A=25^\circ\text{C}$, unless otherwise specified)

PARAMETER	SYMBOL	RATINGS	UNIT
Drain-Source Voltage	V_{DSS}	40	V
Gate-Drain Voltage	V_{GDS}	-40	V
Gate Current	I_G	10	mA
Drain Current	I_D	1	mA
Power Dissipation	P_D	125	mW
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature	T_{STG}	-55 ~ +150	$^\circ\text{C}$

Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

■ ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Gate-to-Drain Breakdown Voltage	$V_{(BR)GDS}$	$I_D=-10\mu\text{A}$, $V_{DS}=0\text{V}$	-40			V
Gate-to-Source Leakage Current	I_{GSS}	$V_{GS}=-20\text{V}$, $V_{DS}=0\text{V}$			-500	pA
Zero-Gate Voltage Drain Current	I_{DSS}	$V_{DS}=10\text{V}$, $V_{GS}=0\text{V}$	30		300	μA
Cutoff Voltage	$V_{GS(OFF)}$	$V_{DS}=10\text{V}$, $I_D=1\mu\text{A}$		-1.5	-4.0	V
Forward Transfer Admittance	$ y_{fs} $	$V_{GS}=0\text{V}$, $V_{DS}=10\text{V}$, $f=1.0\text{KHz}$	0.05	0.13		mS
Input Capacitance	C_{ISS}	$V_{GS}=0\text{V}$, $V_{DS}=10\text{V}$, $f=1.0\text{MHz}$		1.7		pF
Reverse Transfer Capacitance	C_{RSS}			0.7		pF

■ CLASSIFICATION OF I_{DSS}

RANK	B10	B11	B12
RANGE	30~80	60~180	150~300

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