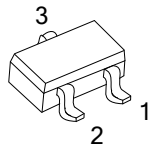
IMPEDANCE CONVERTER APPLICATIONS



SOT-23
(JEDEC TO-236)

■ 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

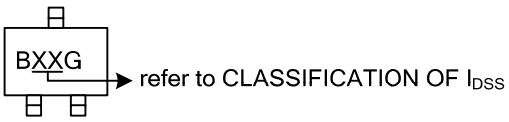
■ ORDERING INFORMATION

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

Note: Pin Assignment: D: Drain S: Source G: Gate

2SK545G-xx-AE3-R (1) Packing Type (2) Package Type (3) Rank (4) Green Package	(1) R: Tape Reel (2) AE3: SOT-23 (3) xx: refer to Classification of I_{DSS} (4) G: Halogen Free and Lead Free

■ MARKING



■ ABSOLUTE MAXIMUM RATINGS (T_A=25°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	°C
Storage Temperature	T_{STG}	-55 ~ +150	°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°C, unless otherwise specified)

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