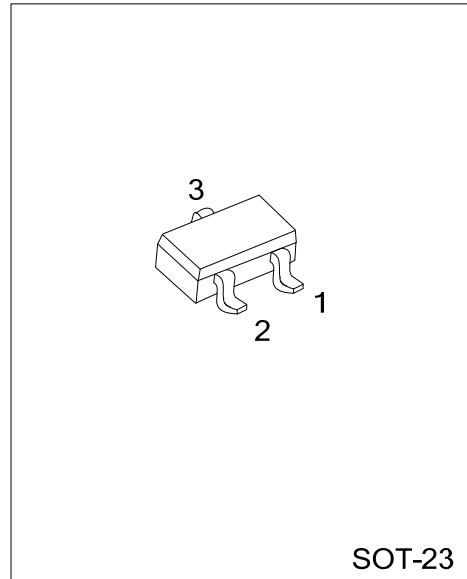




**LOW-FREQUENCY  
GENERAL-PURPOSE  
AMPLIFIER APPLICATIONS**



■ **FEATURES**

- \* Ideal For Potentiometers
- \* Analog Switches
- \* Low Frequency Amplifiers
- \* Constant Current Supplies
- \* Impedance Conversion
- \* Halogen Free

■ **ORDERING INFORMATION**

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
2SK303L-x-AE3-R	2SK303G-x-AE3-R	SOT-23	D	S	G	Tape Reel

<p>2SK303L-x-AE3-R</p> <p>(1) Packing Type (2) Package Type (3) Rank (4) Lead Plating</p>	<p>(1) R: Tape Reel (2) AE3: SOT-23 (3) Refer to Classification of <math>I_{DSS}</math> (4) L: Lead Free, G: Halogen Free</p>
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■ **MARKING**

2SK303-V2	2SK303-V3	2SK303-V4	2SK303-V5
<p>L: Lead Free G: Halogen Free</p>	<p>L: Lead Free G: Halogen Free</p>	<p>L: Lead Free G: Halogen Free</p>	<p>L: Lead Free G: Halogen Free</p>

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

PARAMETER	SYMBOL	RATINGS	UNIT
Drain to Source Voltage	$V_{DSS}$	30	V
Gate to Source Voltage	$V_{GSS}$	-30	V
Gate Current	$I_G$	10	mA
Drain Current	$I_D$	20	mA
Allowable Power Dissipation	$P_D$	200	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
<b>OFF CHARACTERISTICS</b>						
Gate to Drain Breakdown Voltage	$BV_{GDS}$	$I_G = -10\mu\text{A}$	-30			V
Drain-Source Leakage Current	$I_{DSS}$	$V_{DS} = 10\text{V}, V_{GS} = 0\text{V}$	0.6		12.0	mA
Gate-Source Leakage Current	$I_{GSS}$	$V_{GS} = -20\text{V}$			-1.0	nA
<b>ON CHARACTERISTICS</b>						
Gate Cutoff Voltage	$V_{GS(OFF)}$	$V_{DS} = 10\text{V}, I_D = 1\mu\text{A}$		-1	-4	V
Drain-Source On-State Resistance	$R_{DS(ON)}$	$V_{DS} = 10\text{mV}, V_{GS} = 0\text{V}$		250		$\Omega$
Forward Transfer Admittance	$ Y_{FS} $	$V_{DS} = 10\text{V}, V_{GS} = 0\text{V}, f = 1\text{MHz}$	2.5	6.0		mS
<b>DYNAMIC PARAMETERS</b>						
Input Capacitance	$C_{ISS}$	$V_{DS} = 10\text{V}, V_{GS} = 0\text{V}, f = 1\text{MHz}$		5		pF
Reverse Transfer Capacitance	$C_{RSS}$			1.5		pF

■ CLASSIFICATION OF  $I_{DSS}$

RANK	V2	V3	V4	V5
$I_{DSS}$ (mA)	0.6 ~ 1.5	1.2 ~ 3.0	2.5 ~ 6.0	5.0 ~ 12.0

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