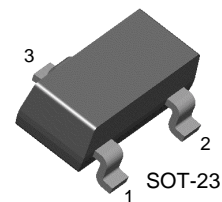


KSK595

Capacitor Microphone Applications

- Especially Suited for use in Audio, Telephone Capacitor Microphones
- Excellent Voltage Characteristic
- Excellent Transient Characteristic



1.Drain 2. Source 3. Gate

Si N-channel Junction FET

Absolute Maximum Ratings $T_a=25^\circ\text{C}$ unless otherwise noted

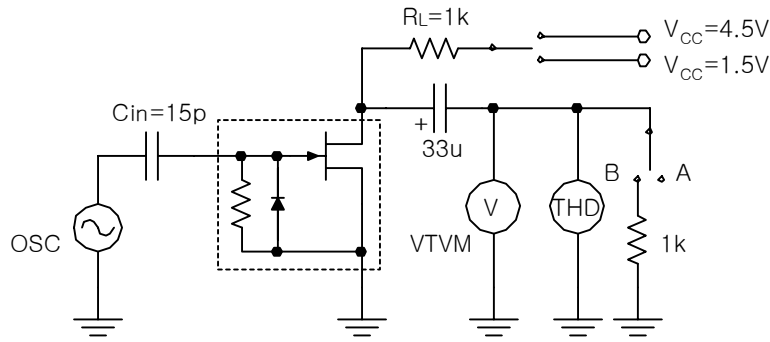
Symbol	Parameter	Ratings	Units
V_{GDO}	Gate-Drain Voltage	-20	V
I_G	Gate Current	10	mA
I_D	Drain Current	1	mA
P_D	Power Dissipation	100	mW
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{STG}	Storage Temperature	-55 ~ 150	$^\circ\text{C}$

Electrical Characteristics $T_a=25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
BV_{GDO}	Gate-Drain Breakdown Voltage	$I_G = -100\mu\text{A}$	-20			V
$V_{GS(off)}$	Gate-Source Cut-off Voltage	$V_{DS}=5\text{V}, I_D=1\mu\text{A}$		-0.6	-1.5	V
I_{DSS}	Drain Current	$V_{DS}=5\text{V}, V_{GS}=0$	150		350	μA
$ Y_{FS} $	Forward Transfer Admittance	$V_{DS}=5\text{V}, V_{GS}=0, f=1\text{MHz}$	0.4	1.2		ms
C_{iss}	Input Capacitance	$V_{DS}=5\text{V}, V_{GS}=0, f=1\text{MHz}$		3.5		pF
C_{rss}	Output Capacitance	$V_{DS}=5\text{V}, V_{GS}=0, f=1\text{MHz}$		0.65		pF

Specified Test Circuit $T_a=25^{\circ}\text{C}$ unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
G_V	Voltage Gain	$V_{IN}=10\text{mV}$, $f=1\text{KHz}$		-3		dB
ΔG_V	Reduced Voltage Characteristic	$V_{IN}=10\text{mV}$, $f=1\text{KHz}$ $V_{CC}=4.5\text{V} \rightarrow 1.5\text{V}$		-1.2	-3.5	dB
$\Delta G_V F$	Frequency Characteristic	$f=1\text{KHz}$ to 110Hz			-1	dB
Z_{IN}	Input Resistance	$f=1\text{KHz}$	25			$\text{M}\Omega$
Z_O	Output Resistance	$f=1\text{KHz}$			700	Ω
THD	Total Harmonic Distortion	$V_{IN}=30\text{mV}$, $f=1\text{KHz}$		1		%
V_{NO}	Output Noise Voltage	$V_{IN}=0$, A CURVE			-110	dB



Typical Characteristics

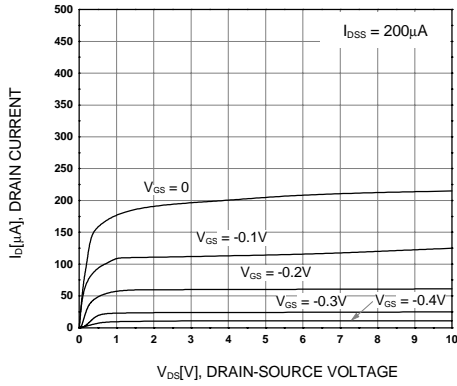


Figure 1.

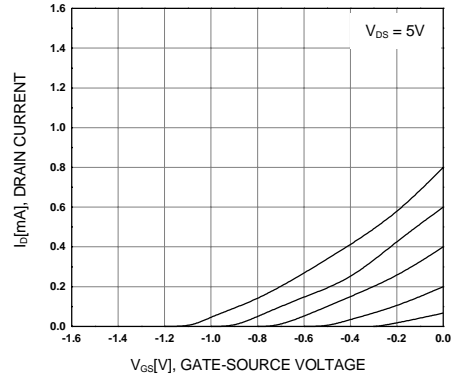


Figure 2.

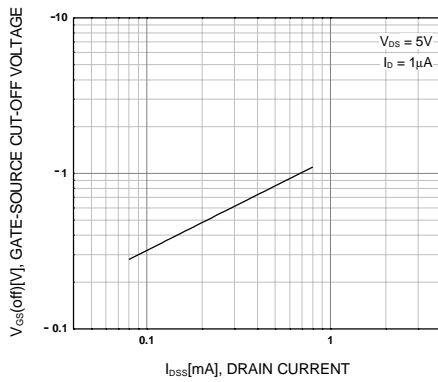


Figure 3.

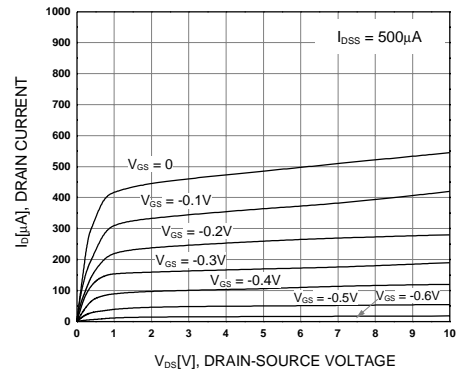


Figure 4.

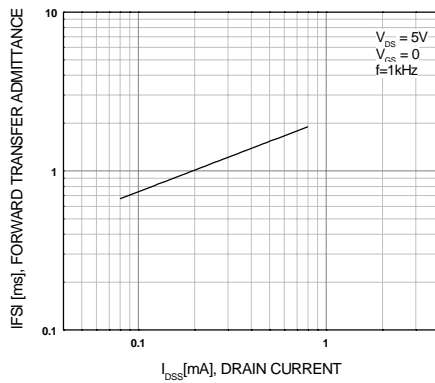


Figure 5.

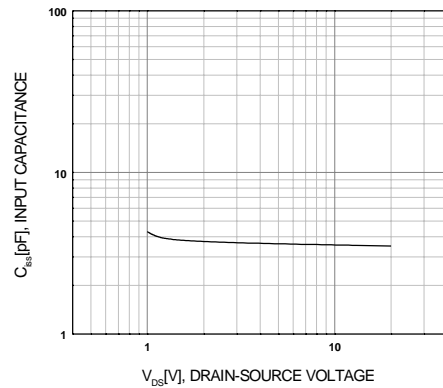


Figure 6.

Typical Characteristics (Continued)

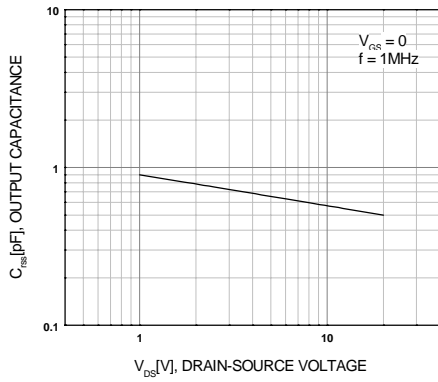


Figure 7.

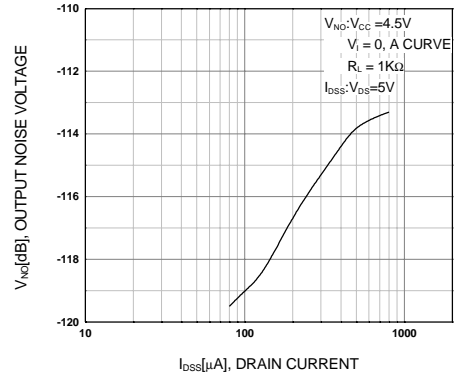


Figure 8.

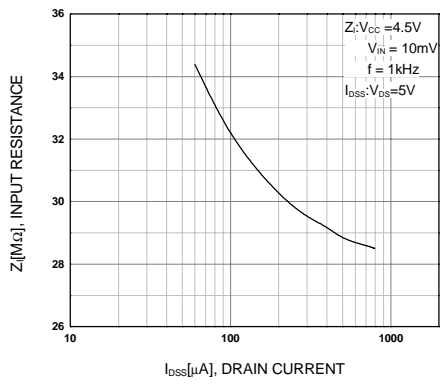


Figure 9.

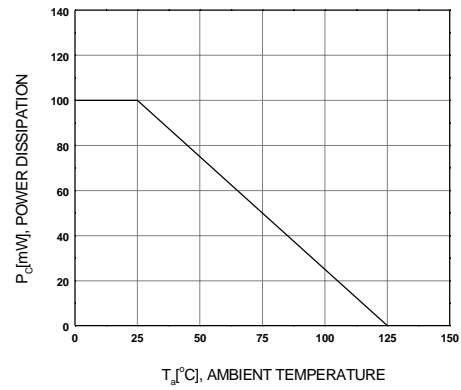


Figure 10.

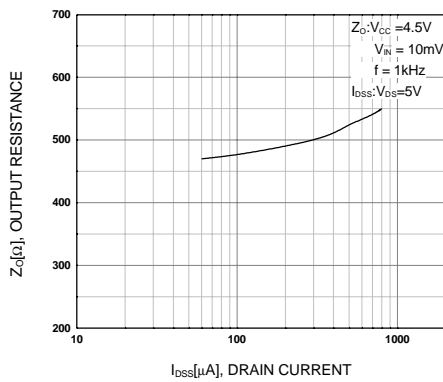


Figure 11.

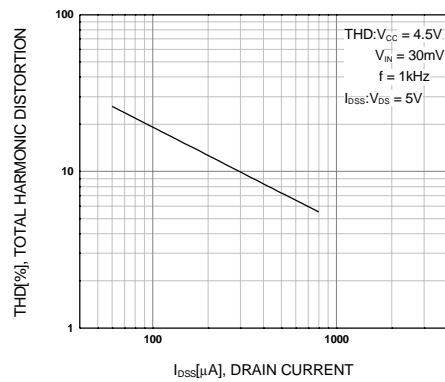


Figure 12.

Typical Characteristics (Continued)

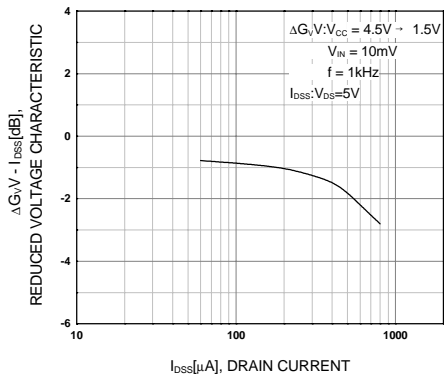


Figure 13.

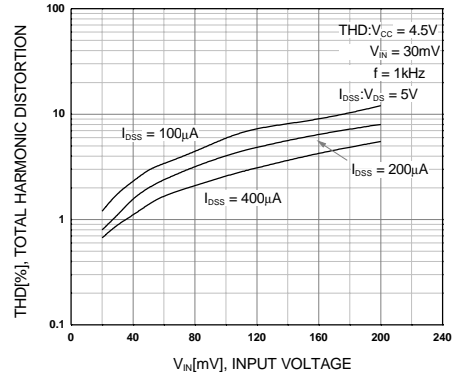


Figure 14.

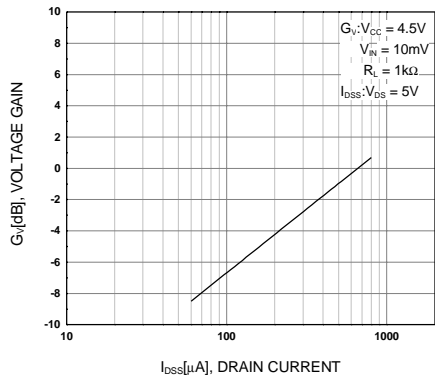
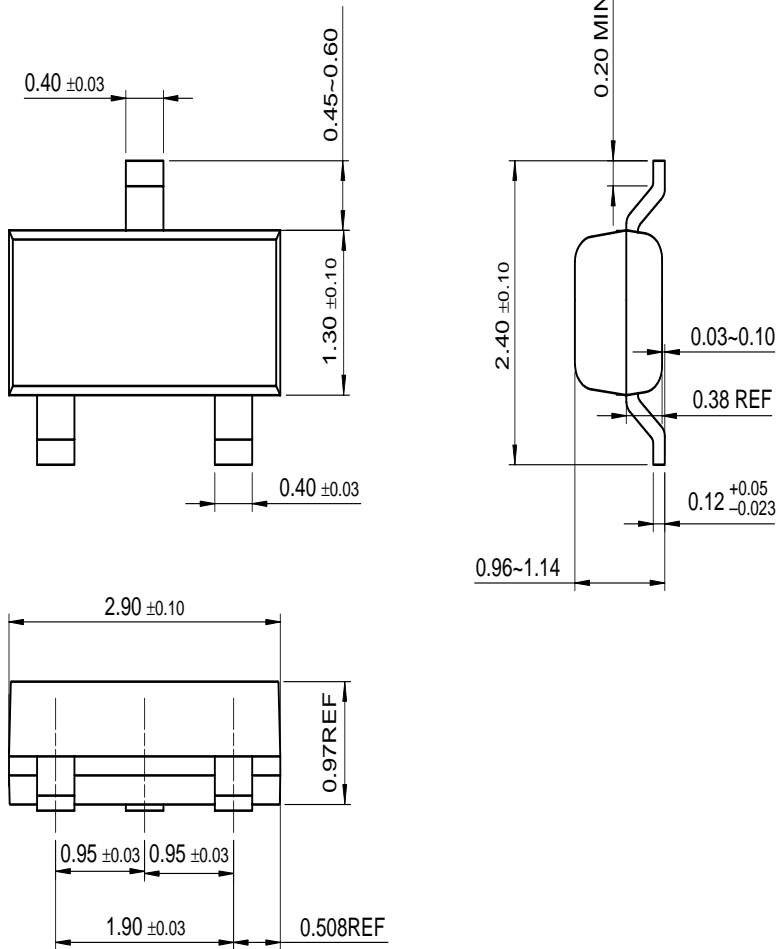


Figure 15.

Package Dimensions

SOT-23



Dimensions in Millimeters

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