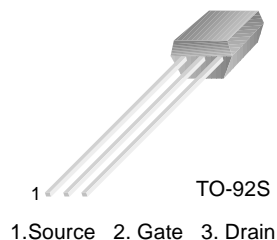


KSK596

Capacitor Microphone Applications

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



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	$V_{DS}=5\text{V}, V_{GS}=0$	100		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

I_{DSS} Classification

Classification	A	B	C
$I_{DSS}(\mu\text{A})$	100 ~ 170	150 ~ 240	210 ~ 350

Typical Characteristics

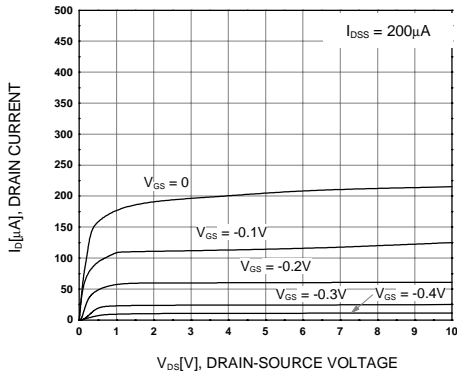


Figure 1. I_D - V_{DS}

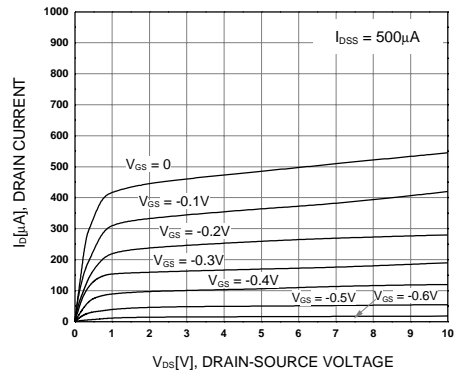


Figure 2. I_D - V_{DS}

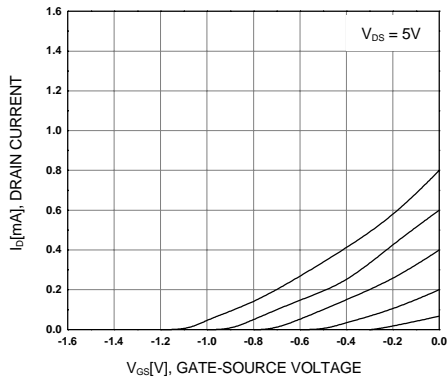


Figure 3. I_D - V_{GS}

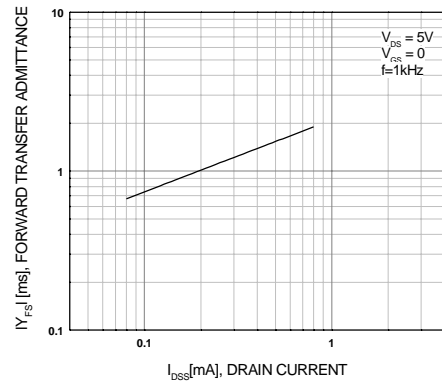


Figure 4. $|y_{FS}|$ - I_{DSS}

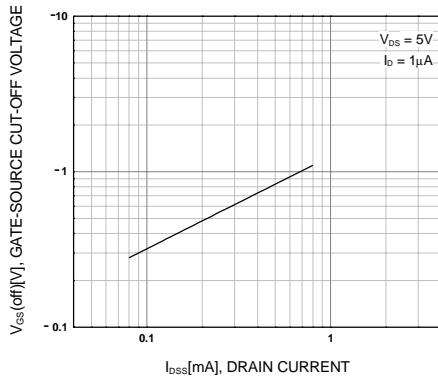


Figure 5. $V_{GS(off)}$ - I_{DSS}

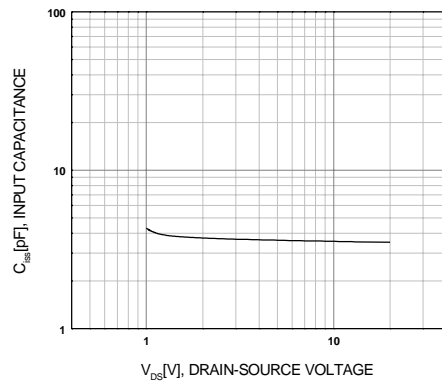


Figure 6. C_{iss} - V_{DS}

Typical Characteristics (Continued)

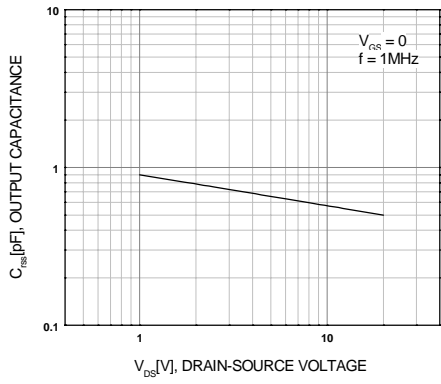


Figure 7. C_{RSS} - V_{DS}

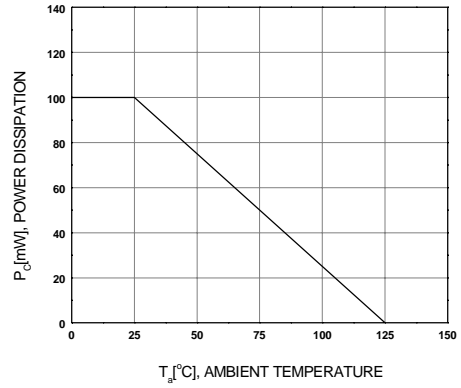
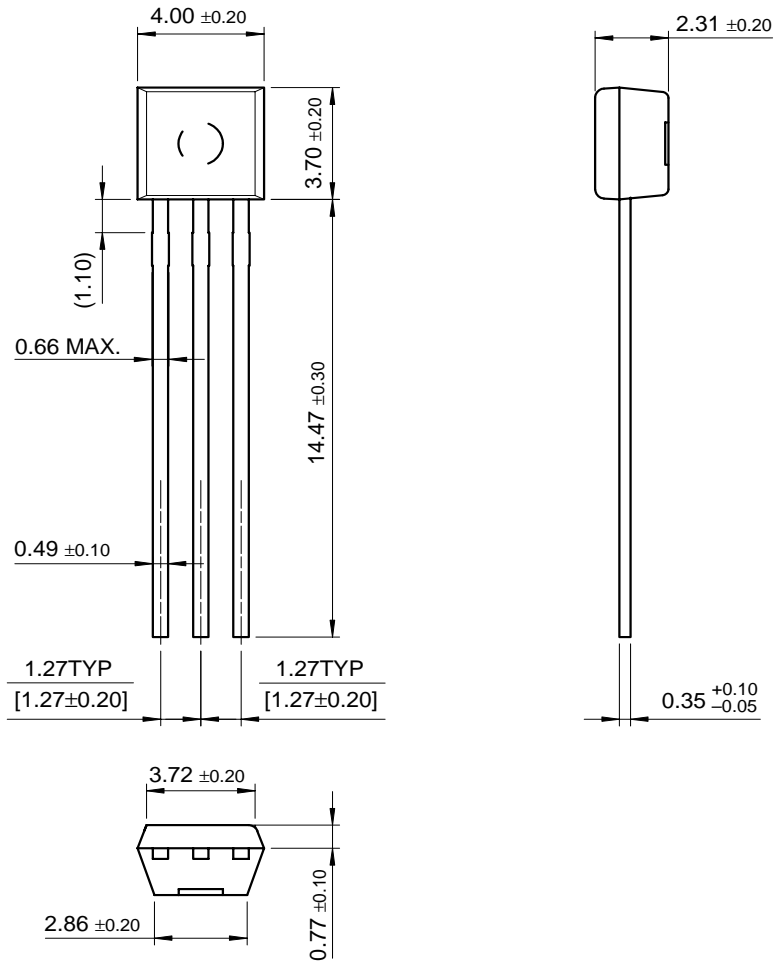


Figure 8. P_D - T_A

Package Dimensions

TO-92S



Dimensions in Millimeters

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Definition of Terms

Datasheet Identification	Product Status	Definition
Advance Information	Formative or In Design	This datasheet contains the design specifications for product development. Specifications may change in any manner without notice.
Preliminary	First Production	This datasheet contains preliminary data, and supplementary data will be published at a later date. Fairchild Semiconductor reserves the right to make changes at any time without notice in order to improve design.
No Identification Needed	Full Production	This datasheet contains final specifications. Fairchild Semiconductor reserves the right to make changes at any time without notice in order to improve design.
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KSK596
Silicon N-Channel Junction FET

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Features

- Especially suited for use in Audio, Telephone Capacitor Microphones
- Excellent Voltage Characteristic
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Applications

Capacitor Microphone

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Product status/pricing/packaging

Product	Product status	Pricing*	Package type	Leads	Packing method
KSK596ABU	Full Production	\$0.06	TO-92S	3	BULK
KSK596PBWD	Full Production	N/A	N/A	N/A	UNKNOWN
KSK596PAWD	Full Production	N/A	N/A	N/A	UNKNOWN
KSK596BU	Full Production	\$0.06	TO-92S	3	BULK
KSK596PCWD	Full Production	N/A	N/A	N/A	UNKNOWN
KSK596BBU	Full Production	\$0.06	TO-92S	3	BULK
KSK596CBU	Full Production	\$0.06	TO-92S	3	BULK

* 1,000 piece Budgetary Pricing

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