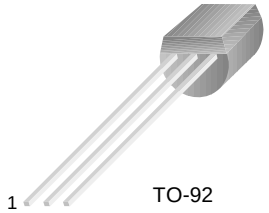
FAIRCHILD
SEMICONDUCTOR®

FJN598J

Capacitor Microphone Applications

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



TO-92

1. Source 2. Gate 3. Drain

Si N-channel Junction FET

Absolute Maximum Ratings T_a=25°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	150	mW
T_J	Junction Temperature	150	°C
T_{STG}	Storage Temperature	-55 ~ 150	°C

Electrical Characteristics T_a=25°C unless otherwise noted

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

I_{DSS} Classification

Classification	A	B	C
I_{DSS}(μA)	100 ~ 170	150 ~ 240	210 ~ 350

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Typical Characteristics

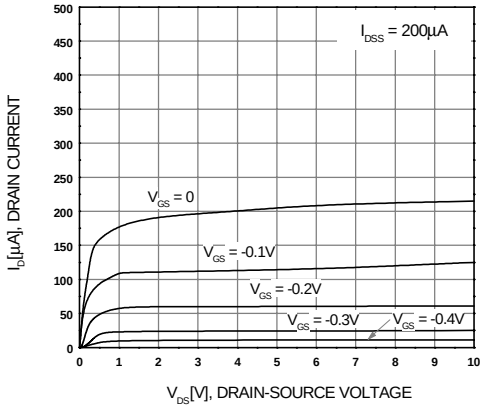

Figure 1. I_D-V_{DS}

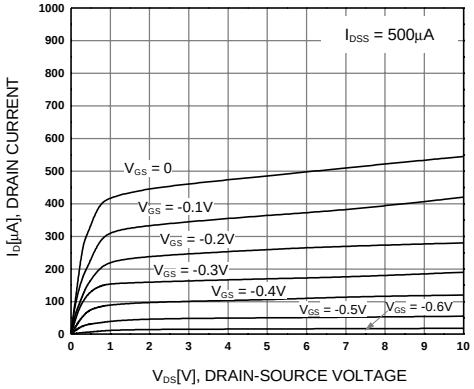

Figure 2. I_D-V_{DS}

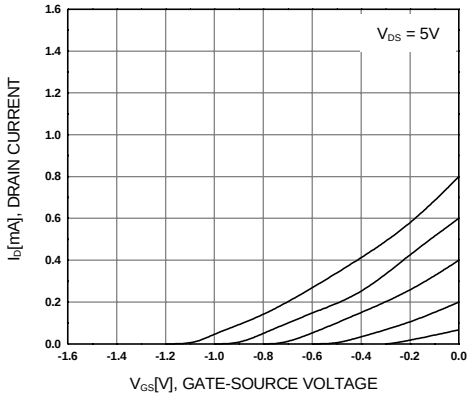

Figure 3. I_D-V_{GS}

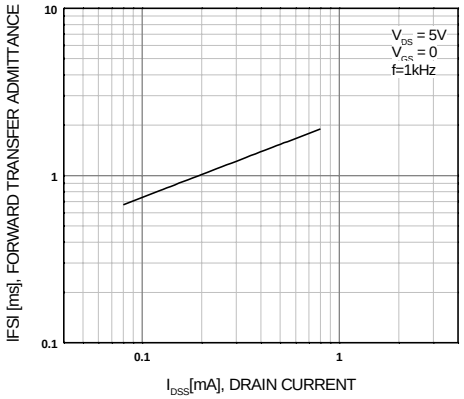

Figure 4. $|y_{FS}|$-I_{DSS}

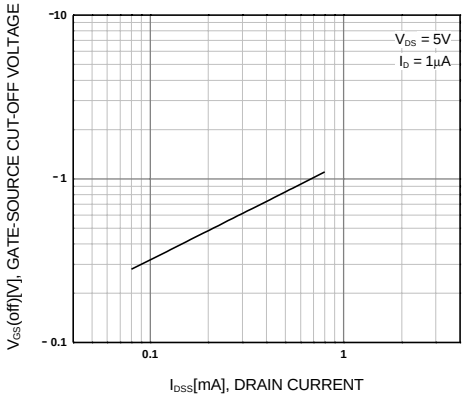

Figure 5. $V_{GS(off)}$-I_{DSS}

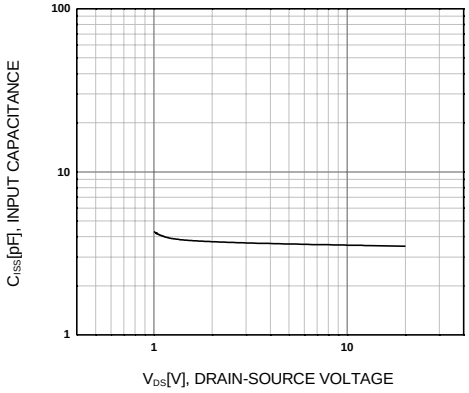

Figure 6. C_{ISS}-V_{DS}

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Typical Characteristics (Continued)

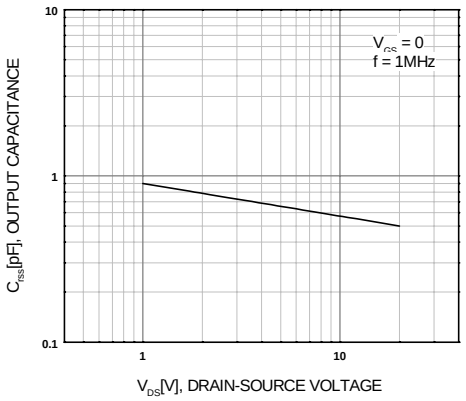

Figure 7. C_{RSS}-V_{DS}

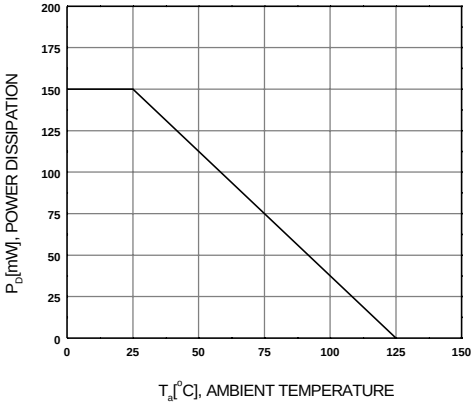

Figure 8. P_D-T_A

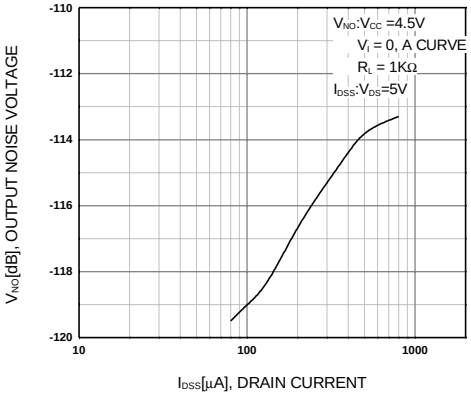

Figure 9. V_{NO}-I_{DSS}

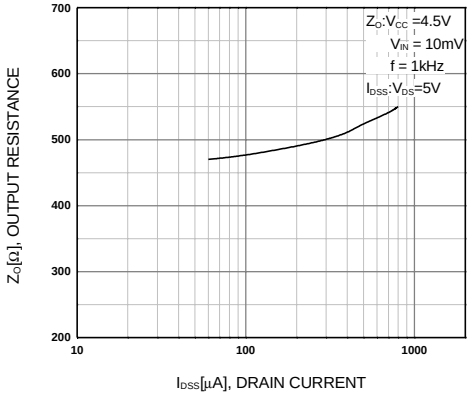

Figure 10. Z_O-I_{DSS}

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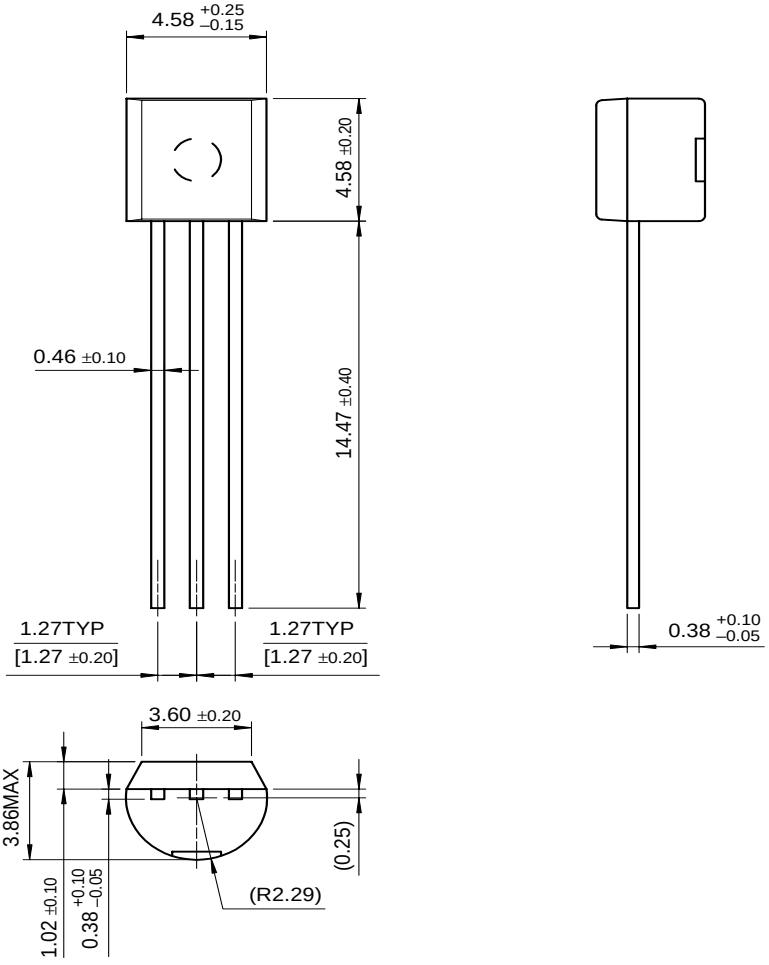
Package Dimensions

TO-92



Dimensions in Millimeters

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CROSSVOLT™	FRFET™	MicroPak™	QFET™	SuperSOT™-8
DOME™	GlobalOptoisolator™	MICROWIRE™	QS™	SyncFET™
EcoSPARK™	GTO™	MSX™	QT Optoelectronics™	TinyLogic™
E^2CMOS™	HiSeC™	MSXPro™	Quiet Series™	TruTranslation™
EnSigna™	I^2C™	OCX™	RapidConfigure™	UHC™
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The Power Franchise™		OPTOLOGIC®	SILENT SWITCHER®	VCX™
Programmable Active Droop™		OPTOPLANAR™	SMART START™	

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