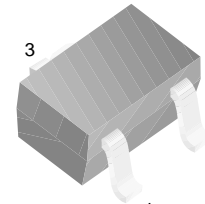


FJX597JC

FJX597JC

Capacitor Microphone Applications

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



1 SOT-323
Marking: SCC
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 | $V_{DS}=5\text{V}, V_{GS}=0$ | 210 | | 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 |

Typical Characteristics

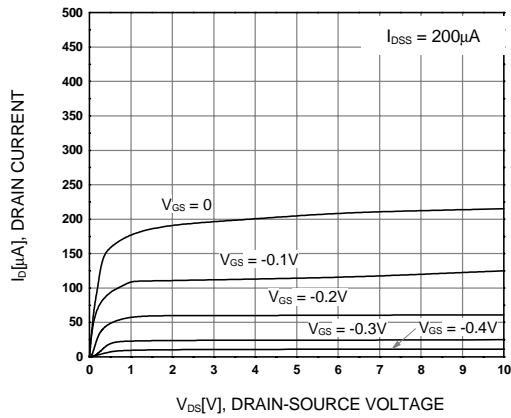


Figure 1. I_D - V_{DS}

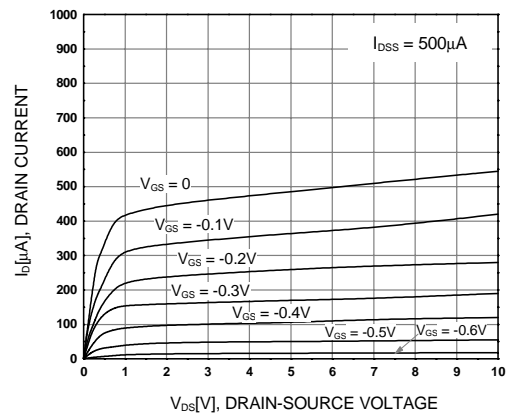


Figure 2. I_D - V_{DS}

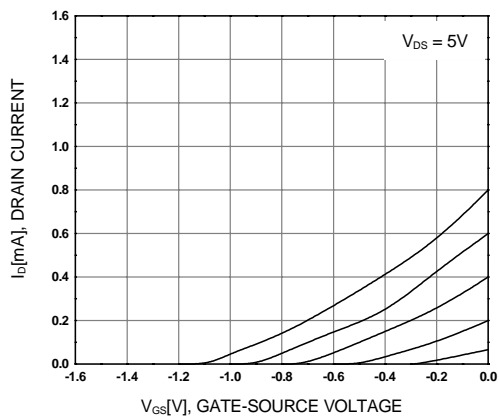


Figure 3. I_D - V_{GS}

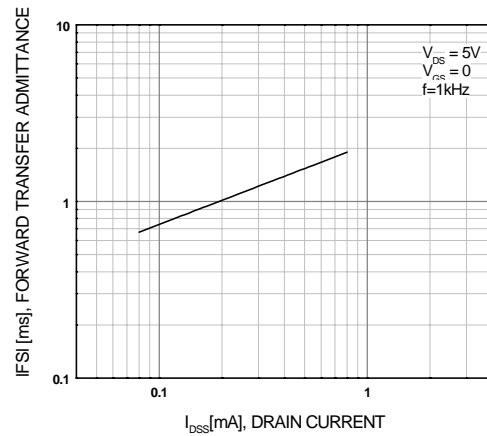


Figure 4. $|y_{FS}|$ - I_{DSS}

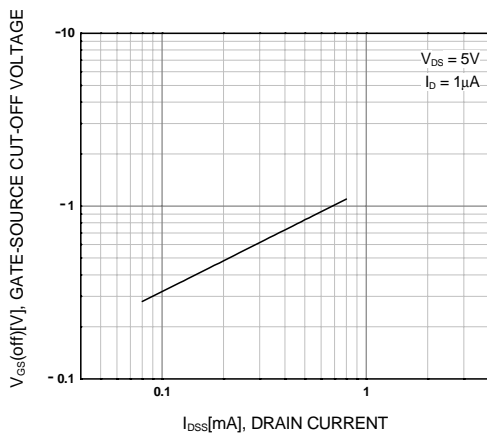


Figure 5. $V_{GS(off)}$ - I_{DSS}

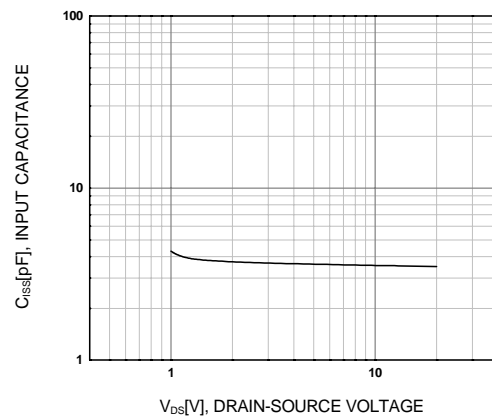


Figure 6. C_{iss} - V_{DS}

Typical Characteristics (Continued)

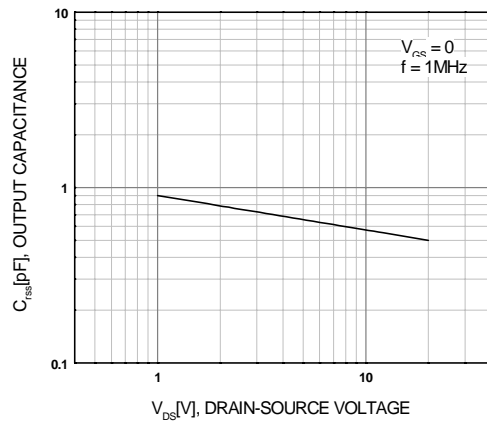


Figure 7. C_{RSS} - V_{DS}

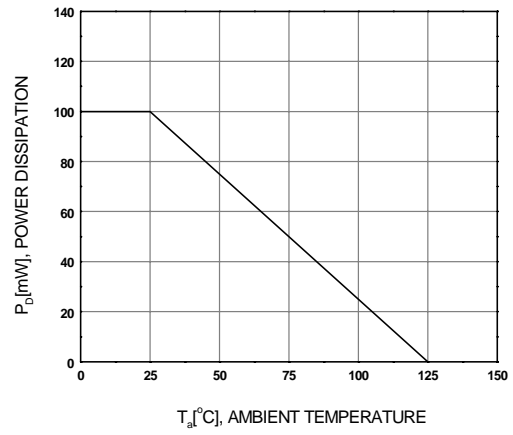
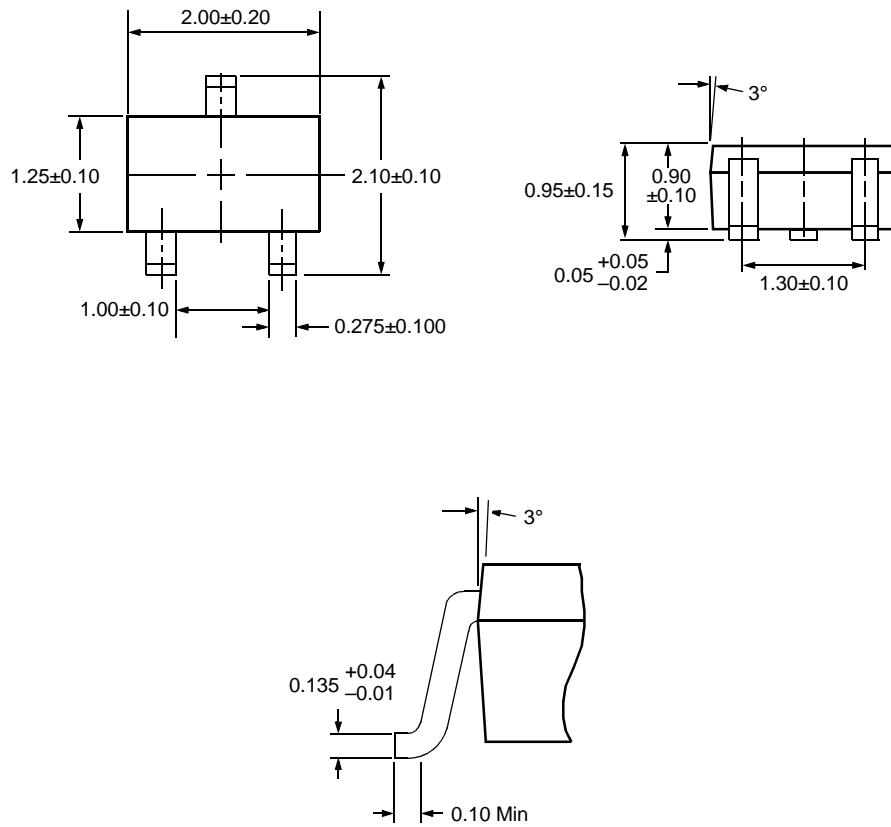


Figure 8. P_D - T_A

Package Dimensions

FJX597JC

SOT-323



Dimensions in Millimeters

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|--------------------------|------------------------|---|
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FJX597JC

Silicon N-Channel Junction FET

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Features

Capacitor Microphone Applications

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

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Product status/pricing/packageing

BUY

| Product | Product status | Pb-free Status | Pricing* | Package type | Leads | Packing method | Package Marking Convention** |
|------------|-----------------|---------------------|----------|-------------------------|-------|----------------|------------------------------|
| FJX597JCTF | Full Production | Full Production | \$0.077 | SOT-323 | 3 | TAPE REEL | Line 1: SCC |

* Fairchild 1,000 piece Budgetary Pricing

** A sample button will appear if the part is available through Fairchild's on-line samples program. If there is no sample button, please contact a [Fairchild distributor](#) to obtain samples



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BUY

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Models

| Package & leads | Condition | Temperature range | Vcc range | Software version | Revision date |
|-----------------|----------------------------|-------------------|-----------|------------------|---------------|
| PSPICE | | | | | |
| SOT-323-3 | Electrical | 25°C | 0V to 10V | OrCAD 10.3 | Jul 9, 2007 |

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Qualification Support

Click on a product for detailed qualification data

| Product |
|----------------------------|
| FJX597JCTE |

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