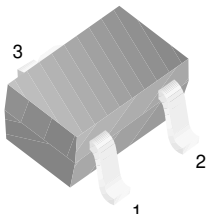
FAIRCHILD
SEMICONDUCTOR®

FJX597JB

Capacitor Microphone Applications

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



SOT-323
Marking: SCB

1. Drain 2. Source 3. Gate

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	100	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	150		240	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

Typical Characteristics

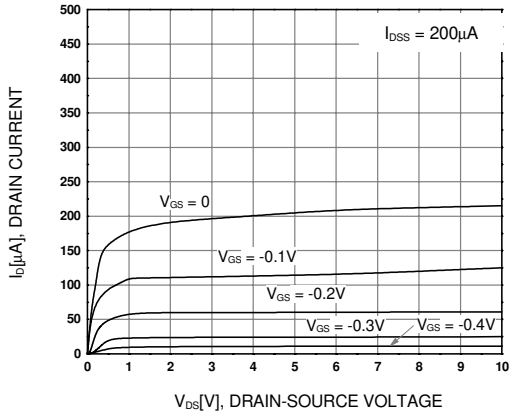


Figure 1. I_D-V_{DS}

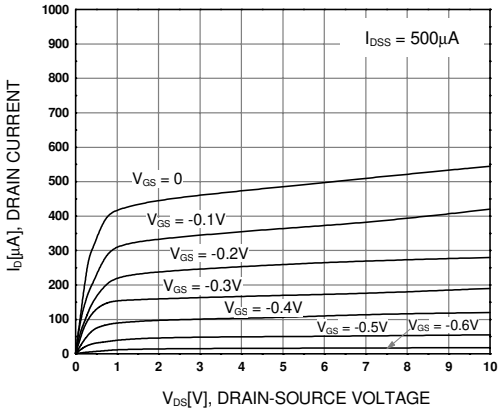


Figure 2. I_D-V_{DS}

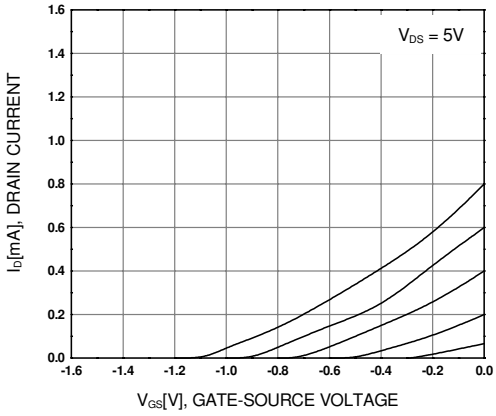


Figure 3. I_D-V_{GS}

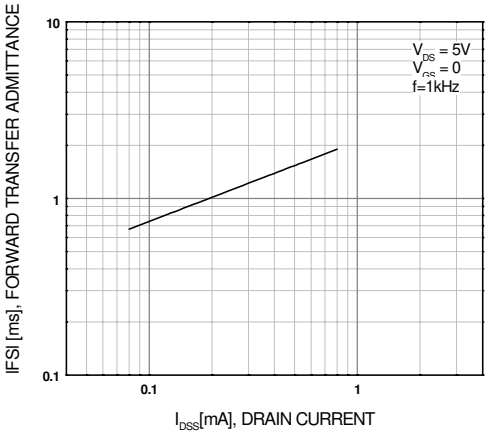


Figure 4. $|y_{FS}|$-I_{DSS}

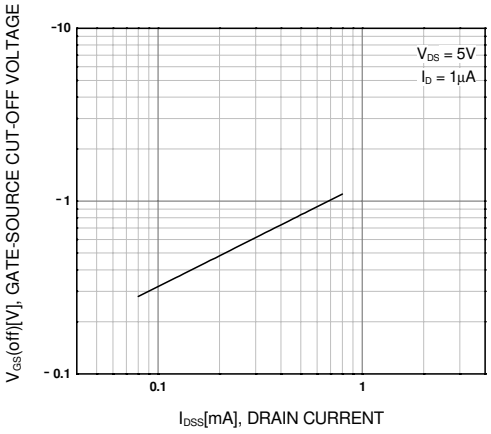


Figure 5. $V_{GS}(off)$-I_{DSS}

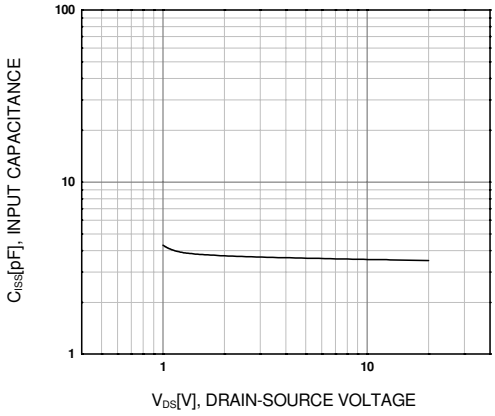


Figure 6. C_{ISS}-V_{DS}

Typical Characteristics (Continued)

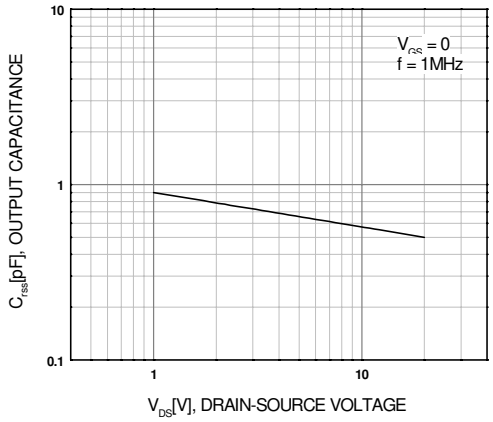


Figure 7. C_{RSS}-V_{DS}

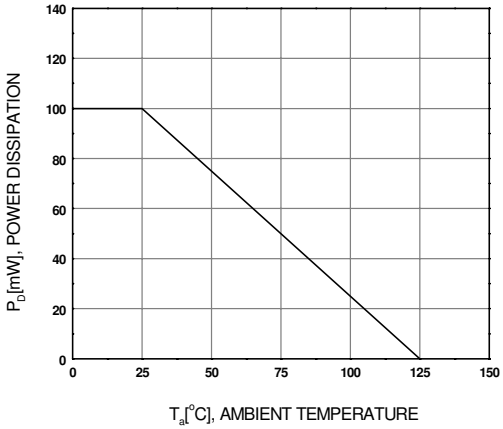
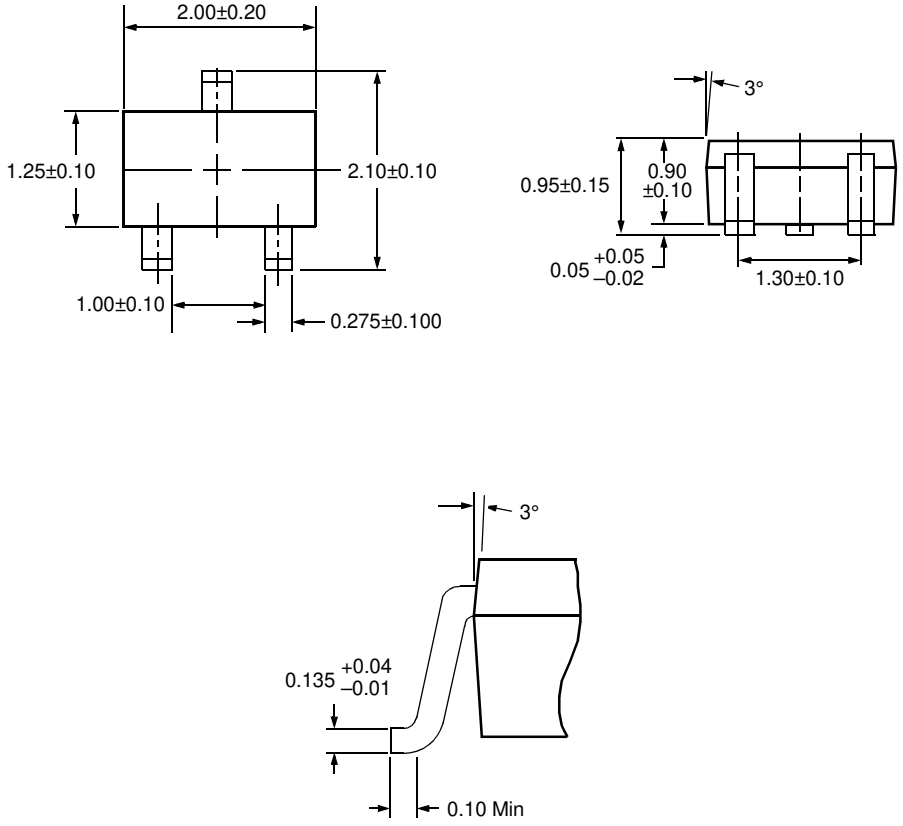


Figure 8. P_D-T_A

Package Dimensions

SOT-323



Dimensions in Millimeters

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CoolFET™	FRFET™	MicroFET™	PowerTrench®	SuperSOT™-6
CROSSVOLT™	GlobalOptoisolator™	MicroPak™	QFET®	SuperSOT™-8
DOME™	GTO™	MICROWIRE™	QS™	SyncFET™
EcoSPARK™	HiSeC™	MSX™	QT Optoelectronics™	TinyLogic®
E^2CMOS™	I^2C™	MSXPro™	Quiet Series™	TINYOPTO™
EnSigna™	*i-Lo*™	OCX™	RapidConfigure™	TruTranslation™
FACT™	ImpliedDisconnect™	OCXPro™	RapidConnect™	UHC™
FACT Quiet Series™		OPTOLOGIC®	µSerDes™	UltraFET®
Across the board. Around the world.™		OPTOPLANAR™	SILENT SWITCHER®	VCX™
The Power Franchise®		PACMAN™	SMART START™	
Programmable Active Droop™		POP™	SPM™	

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