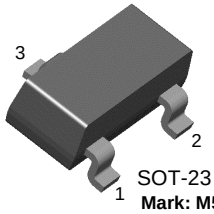
FAIRCHILD
SEMICONDUCTOR®

BSR57

N-Channel Low-Frequency Low-Noise Amplifier

- This device is designed for low-power chopper or switching application sourced from process 51



SOT-23
Mark: M5

1. Drain 2. Source 3. Gate

Absolute Maximum Ratings T_C=25°C unless otherwise noted

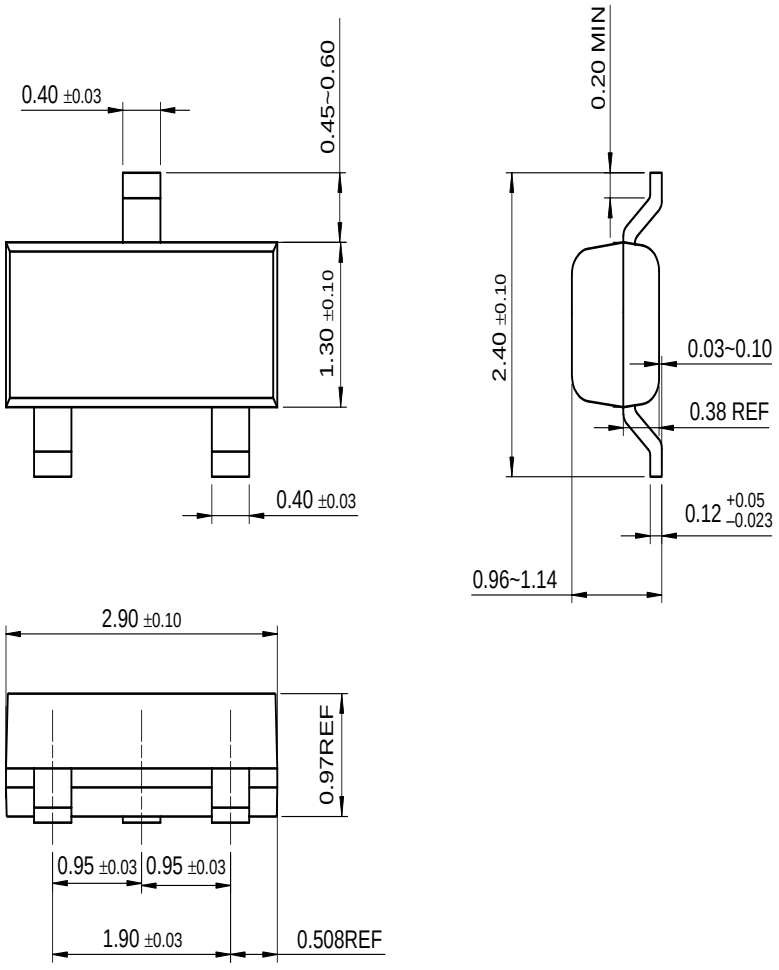
Symbol	Parameter	Value	Units
V_{DGO}	Drain-Gate Voltage	40	V
V_{GSO}	Gate-Source Voltage	- 40	V
I_{GF}	Forward Gate Current	50	mA
P_{tot}	Total Power Dissipation up to T_{amb}=40°C	250	mW
T_{STG}	Storage Temperature Range	- 55 ~ 150	°C
T_J	Junction Temperature	150	°C

Electrical Characteristics T_C=25°C unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Max.	Units
BV_{GSS}	Gate-Source Voltage	V_{DS} = 0V, I_C = 1.0μA	40		V
I_{GSS}	Gate Reverse Current	V_{GS} = 20V, V_{DS} = 0V		1.0	nA
I_{DSS}	Zero-Gate Voltage Drain Current	V_{DS} = 15V, V_{GS} = 0V	20	100	mA
V_{GS}(off)	Gate-Source Cut-off Voltage	V_{DS} = 15V, I_D = 0.5nA	2.0	6.0	V
V_{DS}(on)	Drain-Source On Voltage	V_{GS} = 0V, I_D = 10mA		0.5	V
r_{ds}(on)	Drain-Source On Reverse	V_{GS} = 0V, I_D = 0		40	Ω
C_{rss}	Reverse Transfer Capacitance	V_{DS} = 0V, V_{GS} = 10V		5.0	pF
t_d	Delay Time	V_{DD} = 10V, V_{GS}(on) = 0V I_D = 10mA, V_{GS}(off) = 6.0V		6.0	ns
t_r	Rise Time			4.0	ns
t_{off}	Turn-off Time			50	ns

Package Dimensions

SOT-23



Dimensions in Millimeters

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CoolFET™	FASTr™	MicroFET™	PowerTrench®	SuperSOT™-6
CROSSVOLT™	FRFET™	MicroPak™	QFET™	SuperSOT™-8
DOME™	GlobalOptoisolator™	MICROWIRE™	QS™	SyncFET™
EcoSPARK™	GTO™	MSX™	QT Optoelectronics™	TinyLogic®
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The Power Franchise™		OPTOLOGIC®	SILENT SWITCHER®	VCX™
Programmable Active Droop™		OPTOPLANAR™	SMART START™	

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Definition of Terms

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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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