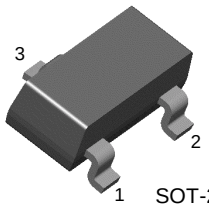
FAIRCHILD
SEMICONDUCTOR®

KSC2859

Low Frequency Power Amplifier

- Complement to KSA1182



SOT-23

1. Base 2. Emitter 3. Collector

NPN Epitaxial Silicon Transistor

Absolute Maximum Ratings T_a=25°C unless otherwise noted

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	35	V
V_{CEO}	Collector-Emitter Voltage	30	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current	500	mA
P_C	Collector Power Dissipation	150	mW
T_J	Junction Temperature	150	°C
T_{STG}	Storage Temperature	-55 ~ 150	°C

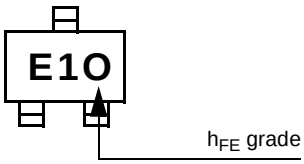
Electrical Characteristics T_a=25°C unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
I_{CEO}	Collector Cut-off Current	V_{CB}=35V, I_E=0			0.1	μA
I_{EBO}	Emitter Cut-off Current	V_{EB}=5V, I_C=0			0.1	μA
h_{FE1} h_{FE2}	DC Current Gain	V_{CE}=1V, I_C=100mA V_{CE}=6V, I_C=400mA	70 25		240	
V_{CE} (sat)	Collector-Emitter Saturation Voltage	I_C=100mA, I_B=10mA		0.1	0.25	V
V_{BE} (on)	Base-Emitter On Voltage	V_{CE}=1V, I_C=100mA		0.8	1.0	V
f_T	Current Gain-Bandwidth Product	V_{CE}=6V, I_C=20mA		300		MHz
C_{ob}	Output Capacitance	V_{CB}=6V, I_E=0, f=1MHz		7		pF

h_{FE1} Classification

Classification	O	Y
h_{FE1}	70 ~ 140	120 ~ 240

Marking



Typical Characteristics

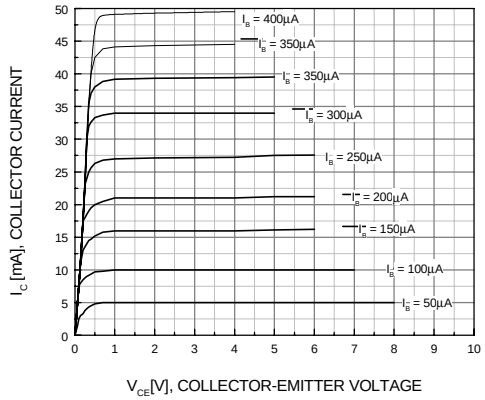


Figure 1. Static Characteristics

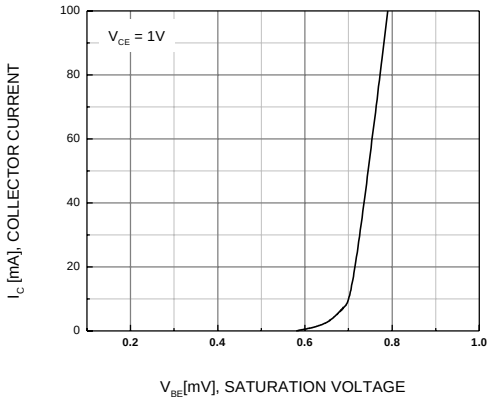


Figure 2. Base-Emitter On Voltage

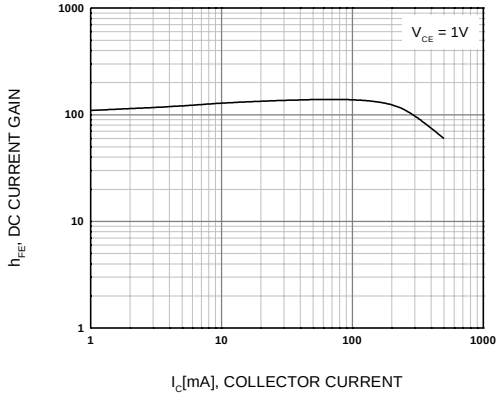


Figure 3. DC Current Gain

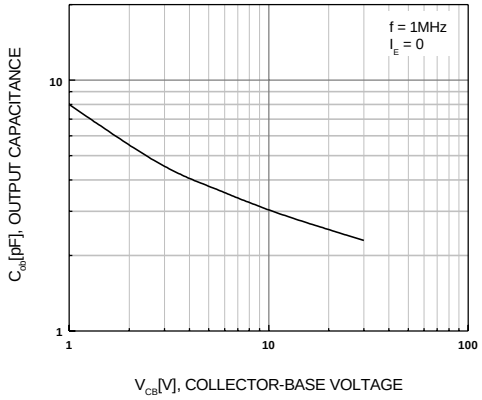


Figure 4. Output Capacitance

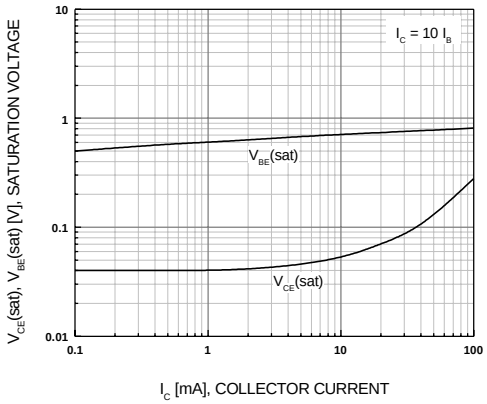
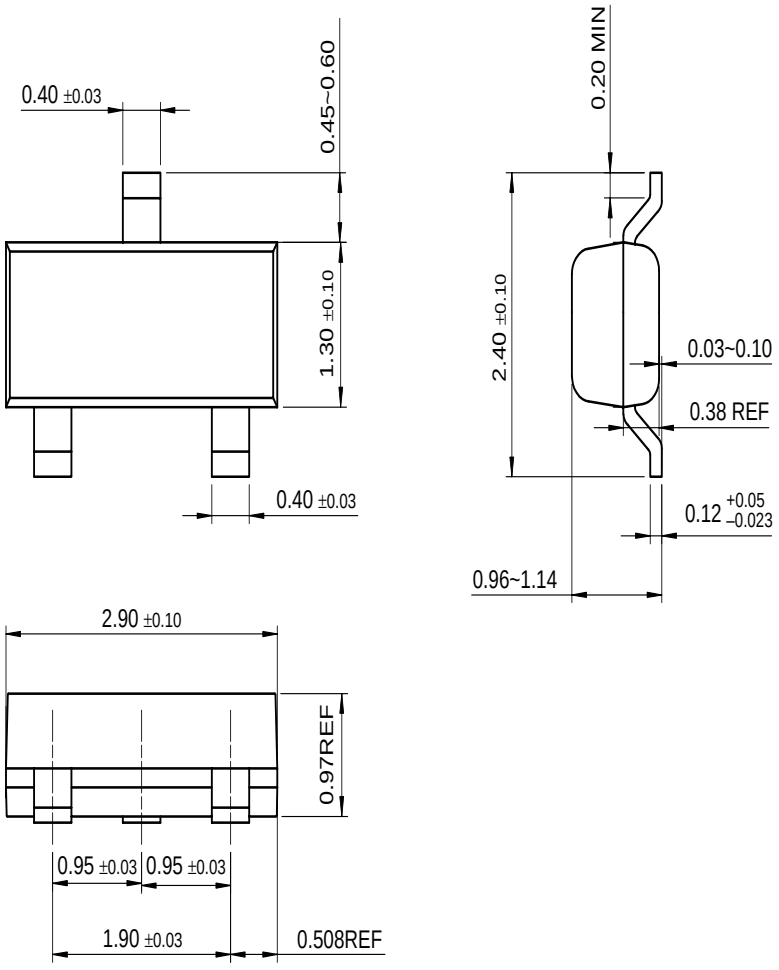


Figure 5. Saturation Voltage

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™
E^2CMOS™	HiSeC™	MSXPro™	Quiet Series™	TruTranslation™
EnSigna™	I^2C™	OCX™	RapidConfigure™	UHC™
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Programmable Active Droop™		OPTOPLANAR™	SMART START™	

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