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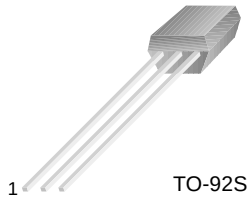
KSA1150

Low Frequency Power Amplifier

- Collector Dissipation : P_C = 300mW
- Complement to KSC2710



TO-92S

1.Emitter 2. Collector 3. Base

PNP Epitaxial Silicon Transistor

Absolute Maximum Ratings T_a=25°C unless otherwise noted

Symbol	Parameter	Ratings	Units
V_{CBO}	Collector-Base Voltage	-40	V
V_{CEO}	Collector-Emitter Voltage	-20	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current (DC)	-500	mA
I_{CP}	* Collector Current (Pulse)	-700	mA
P_C	Collector Power Dissipation	300	mW
T_J	Junction Temperature	150	°C
T_{STG}	Storage Temperature	-55 ~ 150	°C

* PW≤350ms, Duty cycle≤50%

Electrical Characteristics T_a=25°C unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
BV_{CBO}	Collector-Base Breakdown Voltage	I_C= -100μA, I_E=0	-40			V
BV_{CEO}	Collector-Emitter Breakdown Voltage	I_C= -10mA, I_B=0	-20			V
BV_{EBO}	Emitter-Base Breakdown Voltage	I_E= -100μA, I_C=0	-5			V
I_{CBO}	Collector Cut-off Current	V_{CB}= -25V, I_E=0			-100	nA
I_{EBO}	Emitter Cut-off Current	V_{EB}= -3V, I_C=0			-100	nA
h_{FE}	* DC Current Gain	V_{CE}= -1V, I_C= -100mA	40		400	
V_{CE}(sat)	* Collector-Emitter Saturation Voltage	I_C= -500mA, I_B= -50mA		-0.3	-0.4	V
V_{BE} (sat)	* Base-Emitter Saturation Voltage	I_C= -500mA, I_B= -50mA		-1.0	-1.3	V

* Pulse Test: PW≤350μs, Duty cycle≤2%

h_{FE} Classification

Classification	R	O	Y	G
h_{FE}	40 ~ 80	70 ~ 140	120 ~ 240	200 ~ 400

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Typical Characteristics

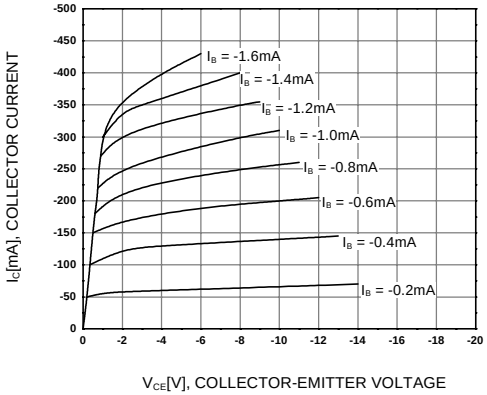

Figure 1. Static Characteristic

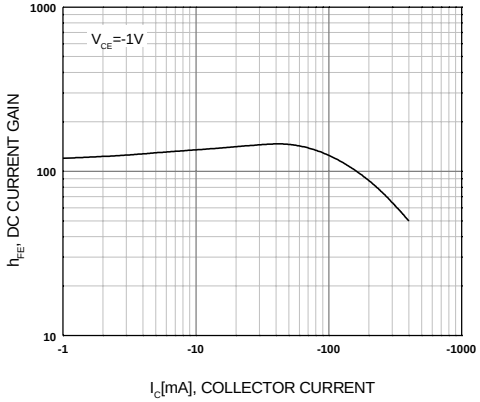

Figure 2. DC current Gain

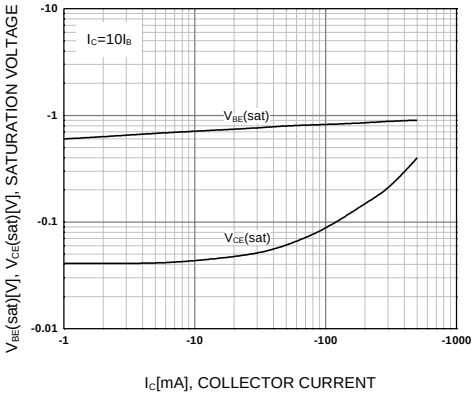

Figure 3. Base-Emitter Saturation Voltage Collector-Emitter Saturation Voltage

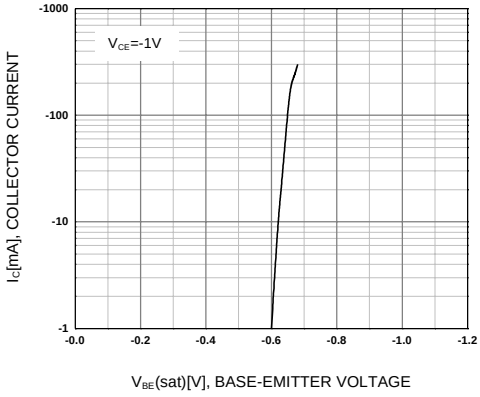

Figure 4. Base-Emitter On Voltage

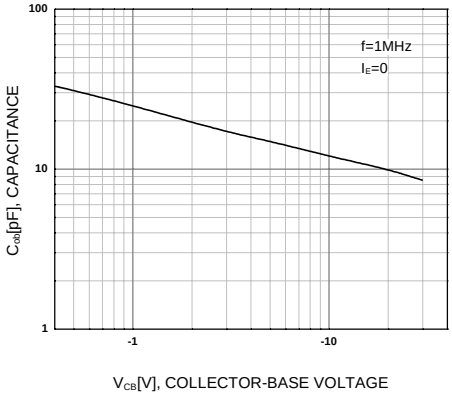

Figure 5. Collector Output Capacitance

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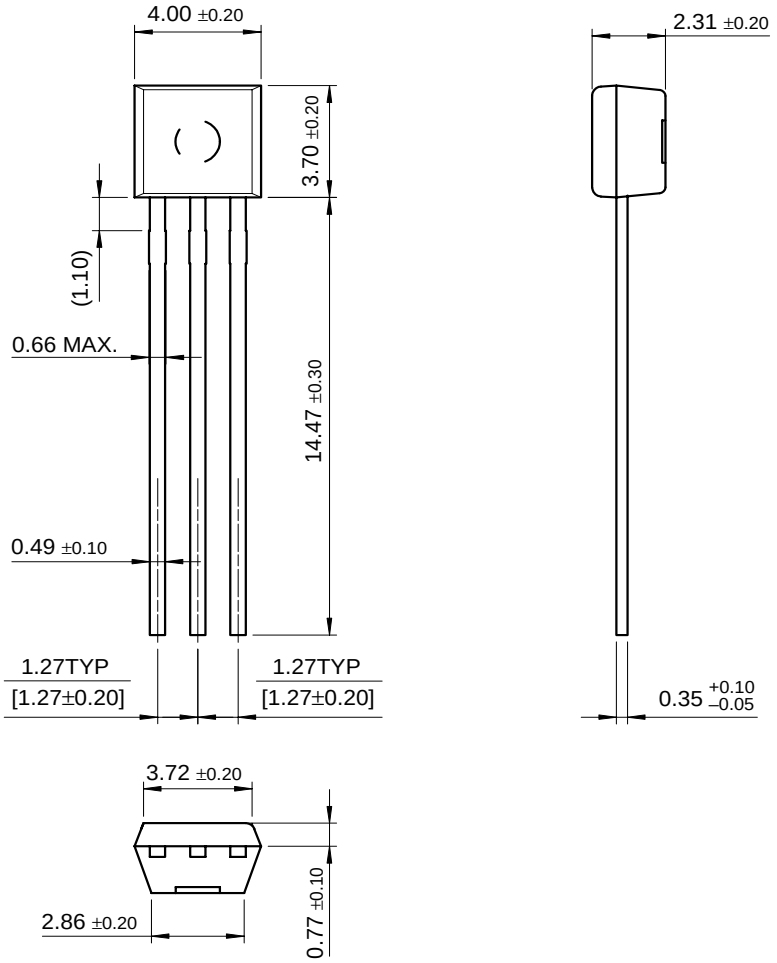
Package Dimensions

TO-92S



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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The Power Franchise™		OPTOLOGIC®	SILENT SWITCHER®	VCX™
Programmable Active Droop™		OPTOPLANAR™	SMART START™	

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