## imall

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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SEMICONDUCTOR®

## **KSA1175**

# Low Frequency Amplifier Collector-Base Voltage : V<sub>CBO</sub>= -60V Complement to KSC2785



1.Emitter 2. Collector 3. Base

## **PNP Epitaxial Silicon Transistor**

Absolute Maximum Ratings  $T_a=25$  °C unless otherwise noted

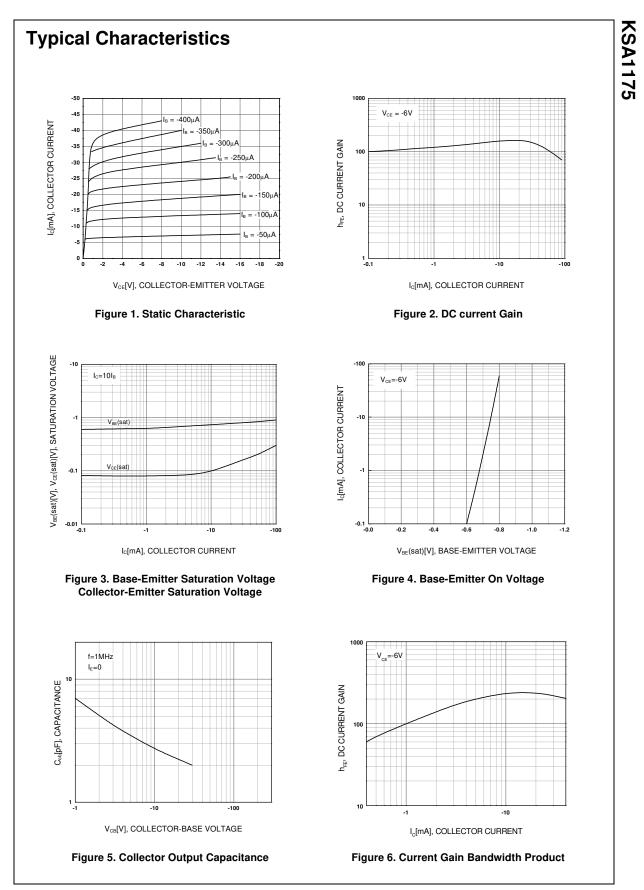
Symbol	Parameter	Ratings	Units
V <sub>CBO</sub>	Collector-Base Voltage	-60	V
V <sub>CEO</sub>	Collector-Emitter Voltage	-50	V
V <sub>EBO</sub>	Emitter-Base Voltage	-5	V
c	Collector Current	-150	mA
P <sub>C</sub>	Collector Power Dissipation	250	mW
ТJ	Junction Temperature	150	°C
T <sub>STG</sub>	Storage Temperature	-55 ~ 150	°C

### **Electrical Characteristics** $T_a=25^{\circ}C$ unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Тур.	Max.	Units
BV <sub>CBO</sub>	Collector-Base Breakdown Voltage	I <sub>C</sub> = -100μΑ, I <sub>E</sub> =0	-60			V
BV <sub>CEO</sub>	Collector-Emitter Breakdown Voltage	I <sub>C</sub> = -10mA, I <sub>B</sub> =0	-50			V
BV <sub>EBO</sub>	Emitter-Base Breakdown Voltage	I <sub>E</sub> = -10μΑ, I <sub>C</sub> =0	-5			V
I <sub>CBO</sub>	Collector Cut-off Current	V <sub>CB</sub> = -60V, I <sub>E</sub> =0			-0.1	μA
I <sub>EBO</sub>	Emitter Cut-off Current	V <sub>EB</sub> = -5V, I <sub>C</sub> =0			-0.1	μA
h <sub>FE</sub>	DC Current Gain	V <sub>CE</sub> = -6V, I <sub>C</sub> = -1mA	40		700	
V <sub>CE</sub> (sat)	Collector-Emitter Saturation Voltage	I <sub>C</sub> = -100mA, I <sub>B</sub> = -10mA		-0.18	-0.3	V
V <sub>BE</sub> (on)	Base-Emitter On Voltage	V <sub>CE</sub> = -6V, I <sub>E</sub> = -1mA	-0.50	-0.62	-0.80	V
f <sub>T</sub>	Current Gain Bandwidth Product	V <sub>CE</sub> = -6V, I <sub>C</sub> = -10mA	50	180		MHz
C <sub>ob</sub>	Output Capacitance	V <sub>CB</sub> = -10V, I <sub>E</sub> =0, f=1MHz		2.8		pF
NF	Noise Figure	$V_{CE}$ = -6V, I <sub>C</sub> = -0.3mA f=100Hz, R <sub>S</sub> =10K $\Omega$		6.0	20	dB

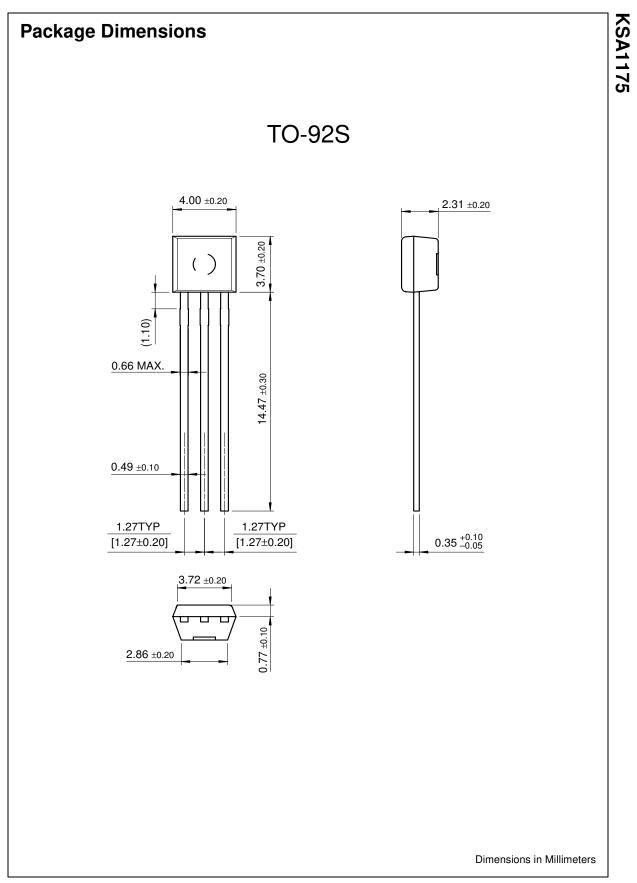
### h<sub>FE</sub> Classification

Classification	R	0	Y	G	L
h <sub>FE</sub>	40 ~ 80	70 ~ 140	120 ~ 240	200 ~ 400	350 ~ 700



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#### **PRODUCT STATUS DEFINITIONS**

#### **Definition of Terms**

Datasheet Identification	Product Status	Definition
Advance Information	Formative or In Design	This datasheet contains the design specifications for product development. Specifications may change in any manner without notice.
Preliminary	First Production	This datasheet contains preliminary data, and supplementary data will be published at a later date. Fairchild Semiconductor reserves the right to make changes at any time without notice in order to improve design.
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.
Obsolete	Not In Production	This datasheet contains specifications on a product that has been discontinued by Fairchild semiconductor. The datasheet is printed for reference information only.