FAIRCHILD

SEMICONDUCTOR®

KSA1625

High Voltage Switch

• High Breakdown Voltage
• High Speed Switching

TO-92

1. Emitter   2. Collector   3. Base

PNP Silicon Transistor

Absolute Maximum Ratings T_a=25°C unless otherwise noted

Symbol	Parameter	Ratings	Units
V_{CBO}	Collector-Base Voltage	-400	V
V_{CEO}	Collector-Emitter Voltage	-400	V
V_{EBO}	Emitter-Base Voltage	-7	V
I_B	Base Current	-0.25	A
I_C	Collector Current (DC)	-0.5	A
I_{CP}	Collector Current (Pulse)	-1.0	A
P_C	Collector Power Dissipation (T_a=25°C)	0.75	W
P_C	Collector Power Dissipation (T_C=25°C)	2	W
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.	Max.	Units
BV_{CEO}	Collector-Emitter Breakdown Voltage	I_C= -1mA, I_B=0	-400		V
I_{CBO}	Collector Cut-off Current	V_{CB}= -400V, I_E=0		-1	μA
I_{EBO}	Emitter Cut-off Current	V_{EB}= -5V, I_C=0		-1	μA
h_{FE}	Dc Current Gain	V_{CE}= -5V, I_C= -50mA	40	200	
V_{CE}(sat)	Collector-Emitter Saturation Voltage	I_C= -100mA, I_B= -10mA		-1	V
V_{BE}(sat)	Base-Emitter Saturation Voltage	I_C= -100mA, I_B= -10mA		-1.2	V
f_T	Current Gain Bandwidth Product	V_{CE}= -10V, I_C= -10mA	10		MHz
C_{ob}	Output Capacitance	V_{CB}= -10V, f=1MHz		25	pF
t_{ON}	Turn On Time	I_C= -100mA, R_L=1.5kΩ		1	μs
t_{STG}	Storage Time	I_{B1}=- I_{B2}= -10mA		5	μs
t_F	Fall Time	V_{CC}= -150V		1	μs

h_{FE} Classification

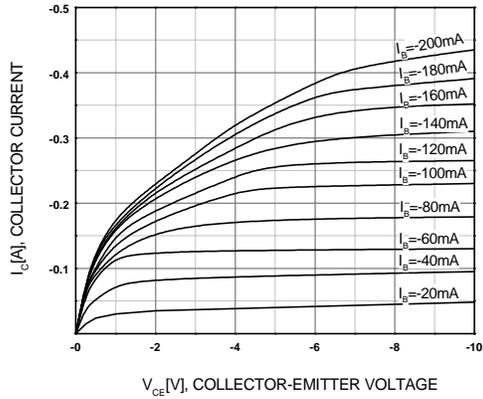| Classification	M	L	K
h_{FE}	40 ~ 80	60 ~ 120	100 ~ 200

Typical Characteristics

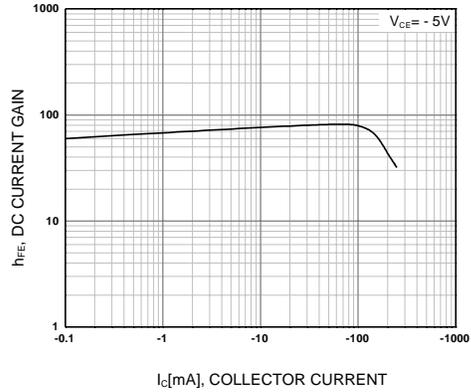
Figure 1. Static Characteristic
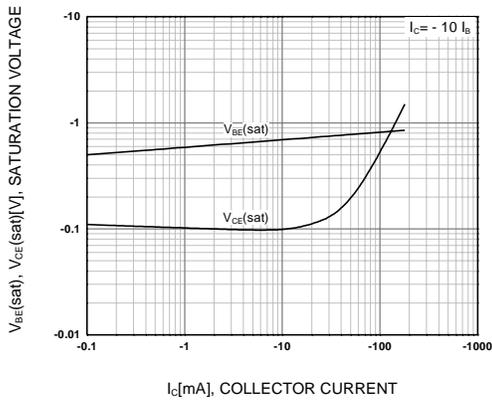

Figure 2. DC current Gain

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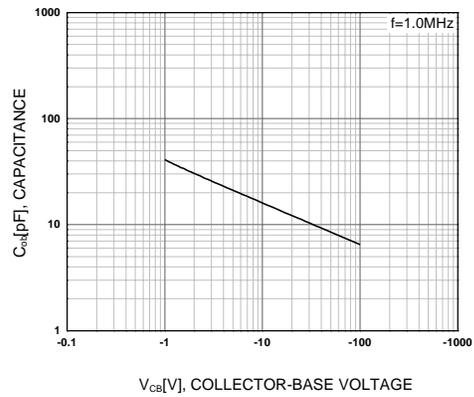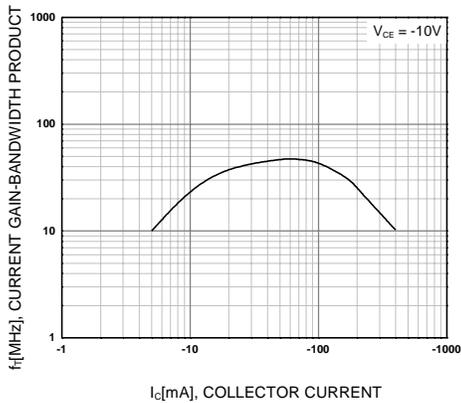Base-Emitter Saturation Voltage

Figure 4. Collector Output Capacitance

Figure 5. Current Gain Bandwidth Product
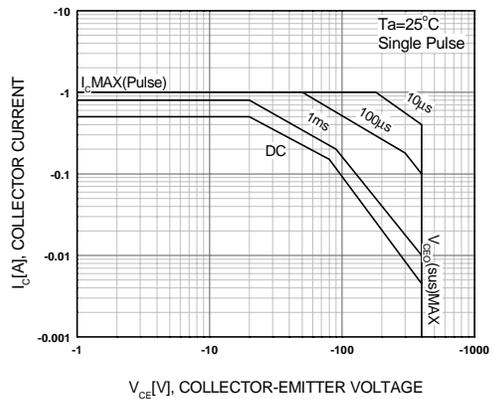
Figure 6. Safe Operating Area

Package Demensions

TO-92

4.58 $^{+0.25}_{-0.15}$

4.58 ±0.20

0.46 ±0.10

14.47 ±0.40

1.27TYP
[1.27 ±0.20]

1.27TYP
[1.27 ±0.20]

0.38 $^{+0.10}_{-0.05}$

3.60 ±0.20

3.86MAX

1.02 ±0.10

0.38 $^{+0.10}_{-0.05}$

(0.25)

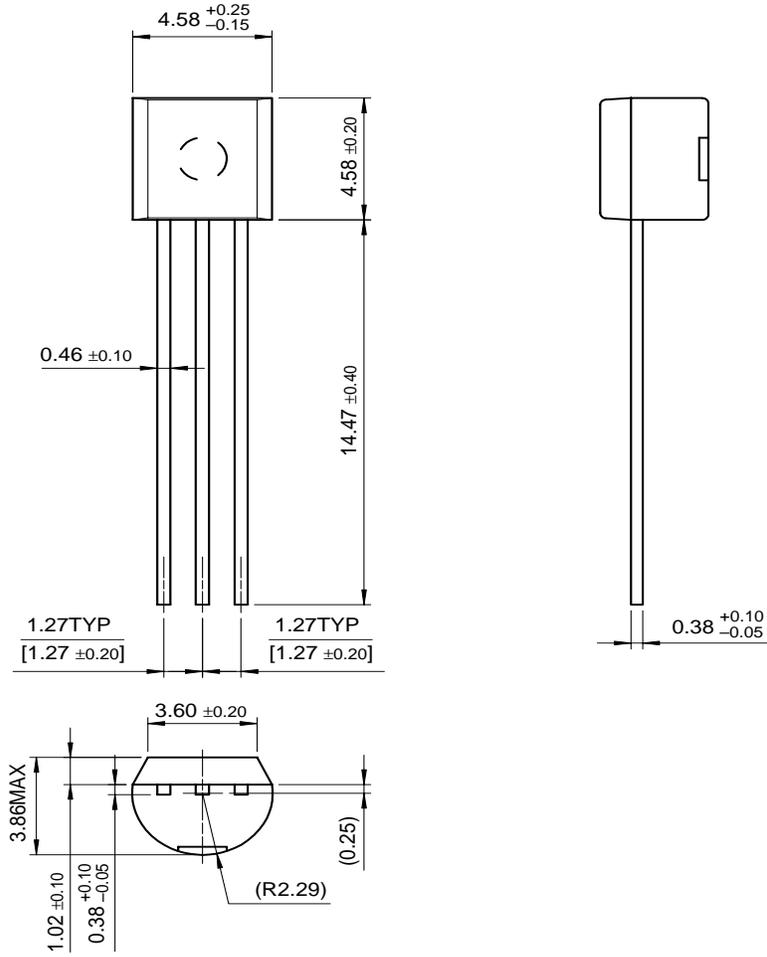(R2.29)

Dimensions in Millimeters

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Features

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Design tools

Product status/pricing/packaging

Product	Product status	Pricing*	Package type	Leads	Packing method
KSA1625KTA	Full Production	$0.153	TO-92	3	TAPE REEL
KSA1625KBU	Full Production	$0.109	TO-92	3	BULK

* 1,000 piece Budgetary Pricing

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