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Fairchild Semiconductor
KSA1406CSTU

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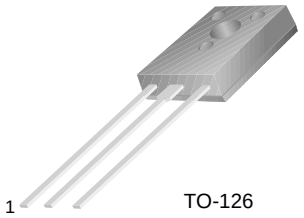
FAIRCHILD SEMICONDUCTOR™

KSA1406

CRT Display, Video Output

- High Current Gain Bandwidth Product : f_T = 400MHz (Typ.)
- High Collector-Base Breakdown Voltage : V_{CBO} = -200V
- Low Reverse Transfer Capacitance : C_{re}=1.7pF (Typ.)



TO-126

1. Emitter 2.Collector 3.Base

PNP Epitaxial Silicon Transistor

Absolute Maximum Ratings T_C=25°C unless otherwise noted

Symbol	Parameter	Ratings	Units
V_{CBO}	Collector-Base Voltage	- 200	V
V_{CEO}	Collector-Emitter Voltage	- 200	V
V_{EBO}	Emitter-Base Voltage	- 4	V
I_C	Collector Current (DC)	- 100	mA
I_{CP}	Collector Current (Pulse)	- 200	mA
P_C	Collector Dissipation (T_a=25°C)	1.2	W
P_C	Collector Dissipation (T_C=25°C)	7	W
T_J	Junction Temperature	150	°C
T_{STG}	Storage Temperature	- 55 ~ 150	°C

Electrical Characteristics T_C=25°C unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
BV_{CBO}	Collector-Base Breakdown Voltage	I_C = - 10μA, I_B = 0	- 200			V
BV_{CEO}	Collector-Emitter Breakdown Voltage	I_C = - 1mA, R_{BE} =∞	- 200			V
BV_{EBO}	Emitter-Base Breakdown Voltage	I_E = - 100μA, I_C = 0	- 4			V
I_{CBO}	Collector Cut-off Current	V_{CB} = - 150V, I_C = 0			- 0.1	μA
I_{EBO}	Emitter Cut-off Current	V_{BE} = - 2V, I_E = 0			- 0.1	μA
h_{FE1} h_{FE2}	DC Current Gain	V_{CE} = - 10V, I_C = - 10mA V_{CE} = - 10V, I_C = - 60mA	40 20		120	
V_{CE}(Sat)	Collector-Emitter Saturation Voltage	I_C = - 30mA, I_C = - 3mA			- 0.8	V
V_{BE}(Sat)	Base-Emitter Saturation Voltage	I_C = - 30mA, I_C = - 3mA			- 1.8	V
f_T	Current Gain Bandwidth Product	V_{CE} = - 30V, I_C = - 30mA		400		MHz
C_{ob}	Output Capacitance	V_{CB} = - 30V, f = 1MHz		2.3		pF
C_{re}	Reverse Transfer Capacitance	V_{CB} = - 30V, f = 1MHz		1.7		pF

* h_{FE} Classification

Classification	C	D
h_{FE1}	40 ~ 80	60 ~ 120

Typical Characteristics

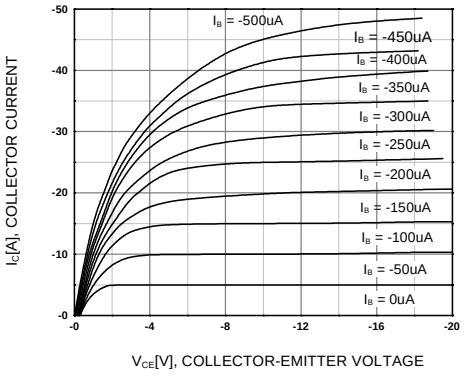


Figure 1. Static Characteristic

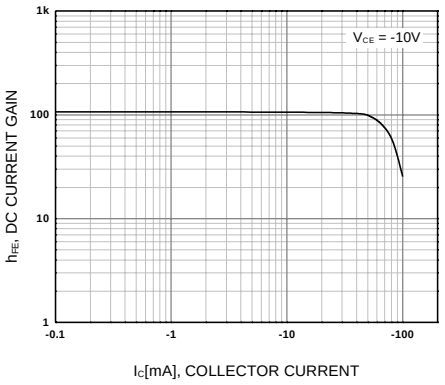


Figure 2. DC current Gain

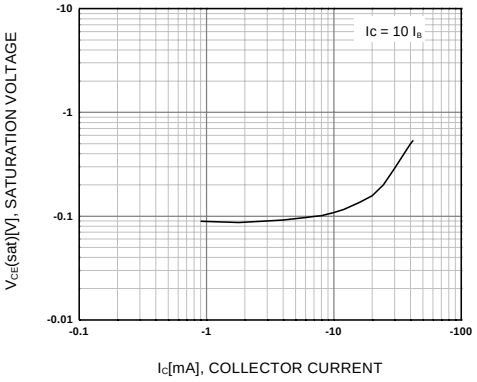


Figure 3. Collector-Emitter Saturation Voltage

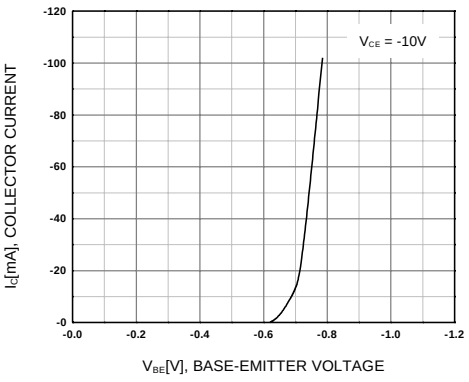


Figure 4. Base-Emitter On Voltage

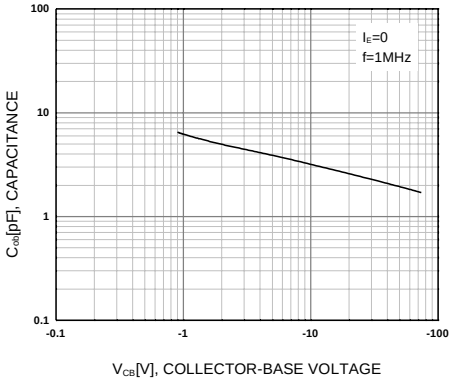


Figure 5. Collector Output Capacitance

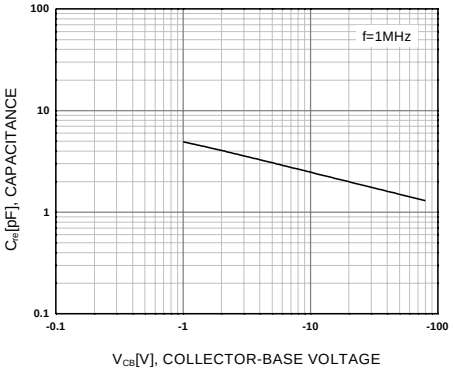


Figure 6. Reverse Capacitance

Typical Characteristics (Continued)

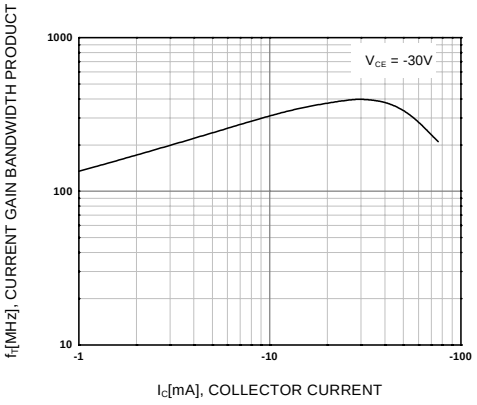


Figure 7. Current Gain Bandwidth Product

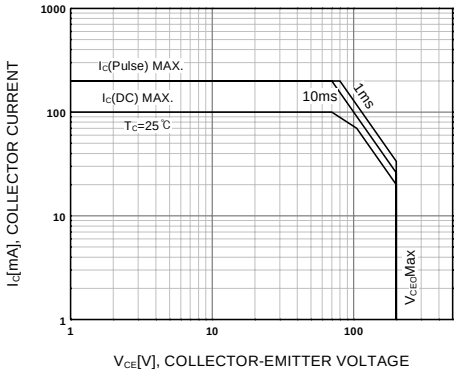


Figure 8. Safe Operating Area

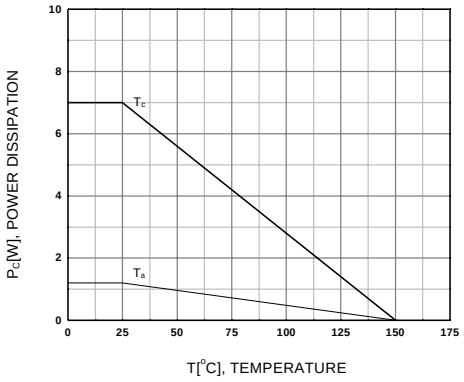


Figure 9. Power Derating

Package Demensions

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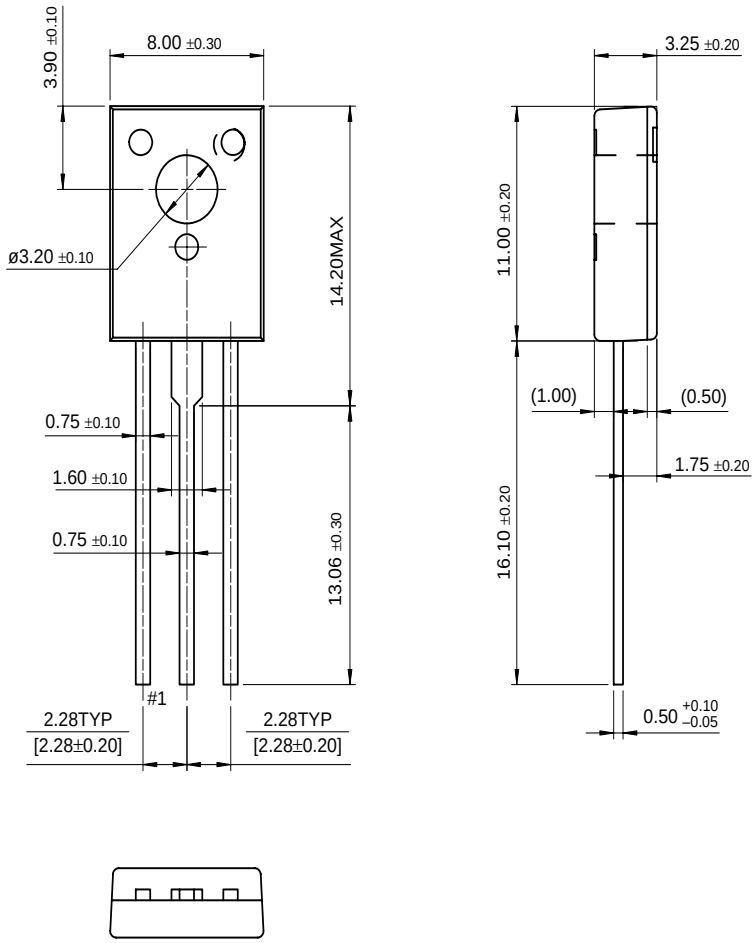

Dimensions in Millimeters

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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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