



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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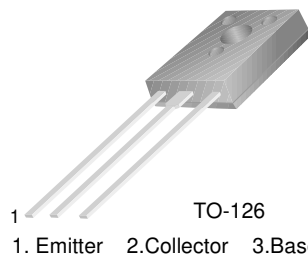
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CRT Display, Video Output

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



PNP Epitaxial Silicon Transistor

Absolute Maximum Ratings $T_C = 25^\circ\text{C}$ 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 ($T_a = 25^\circ\text{C}$)	1.2	W
P_C	Collector Dissipation ($T_C = 25^\circ\text{C}$)	7	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{STG}	Storage Temperature	- 55 ~ 150	$^\circ\text{C}$

Electrical Characteristics $T_C = 25^\circ\text{C}$ unless otherwise noted

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

*** h_{FE} Classification**

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

Typical Characteristics

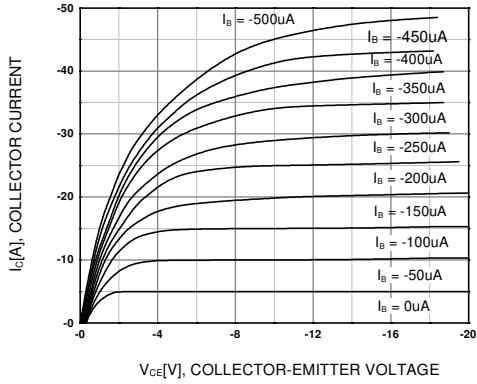


Figure 1. Static Characteristic

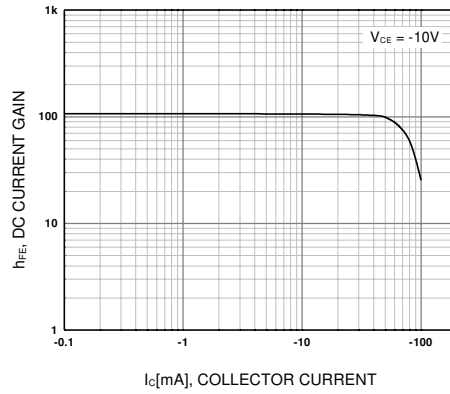


Figure 2. DC current Gain

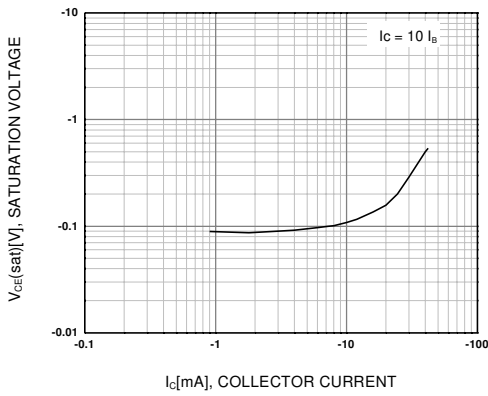


Figure 3. Collector-Emitter Saturation Voltage

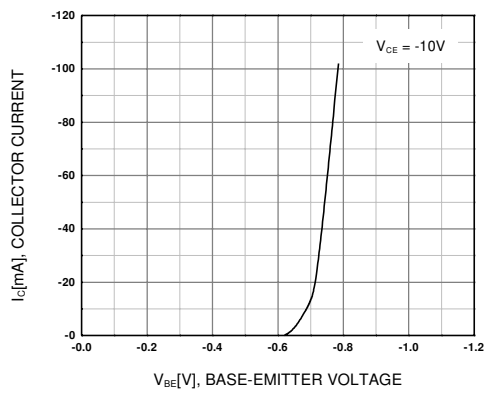


Figure 4. Base-Emitter On Voltage

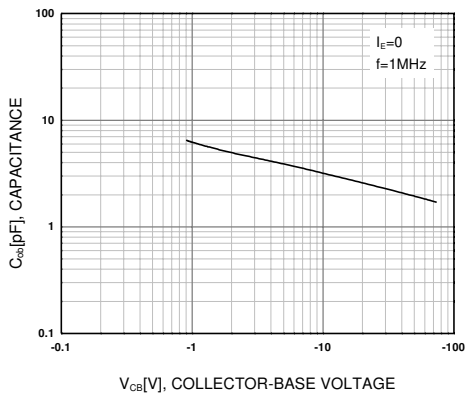


Figure 5. Collector Output Capacitance

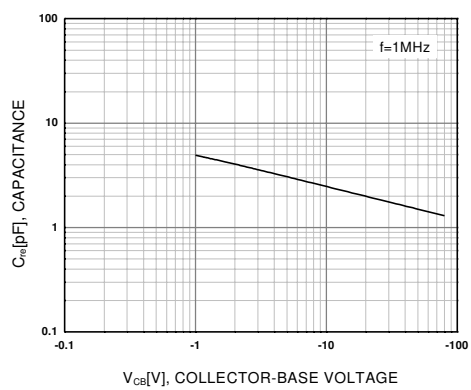


Figure 6. Reverse Capacitance

Typical Characteristics (Continued)

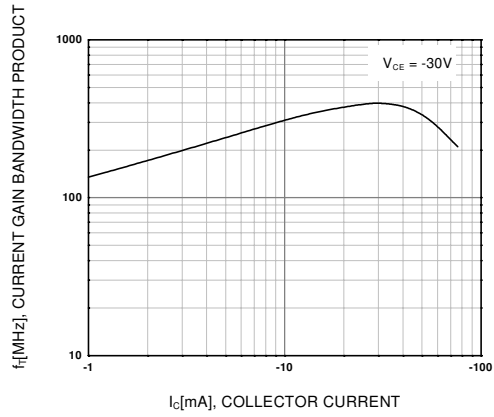


Figure 7. Current Gain Bandwidth Product

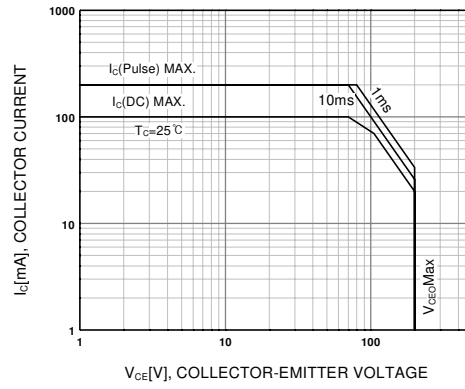


Figure 8. Safe Operating Area

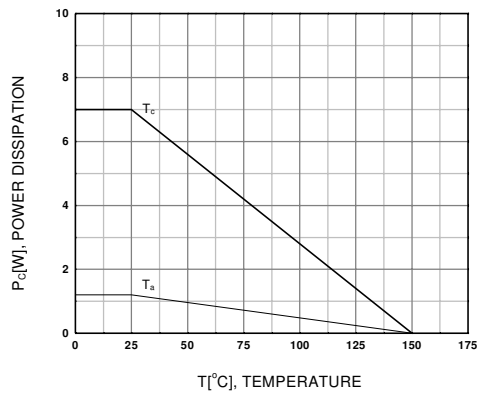
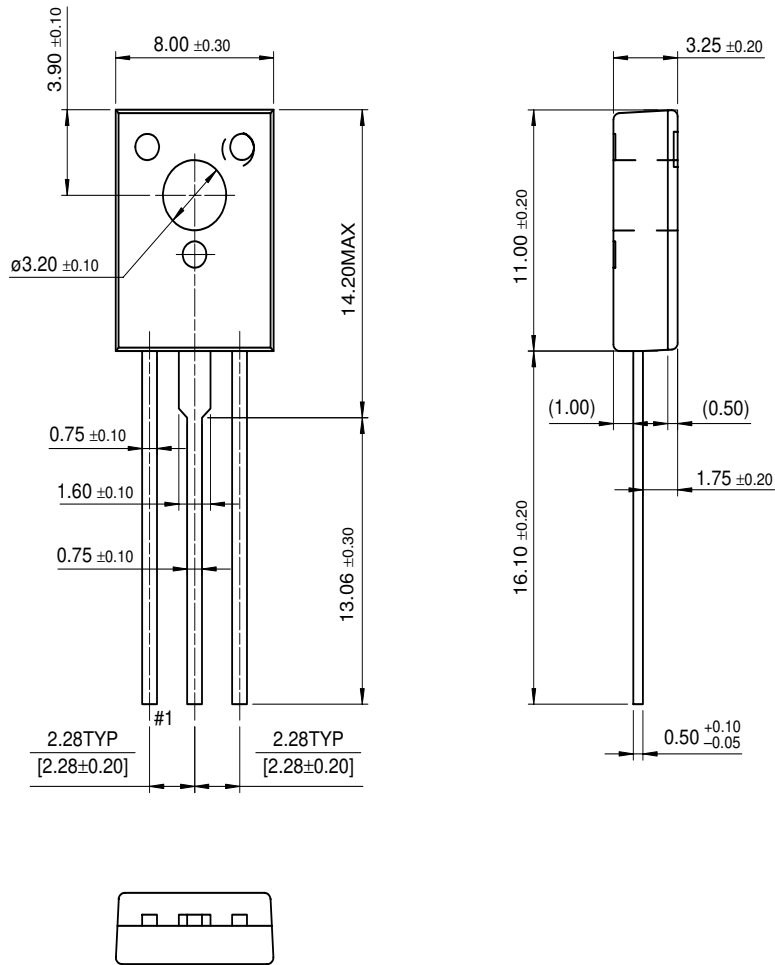


Figure 9. Power Derating

Package Dimensions

KSA1406

TO-126



Dimensions in Millimeters

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