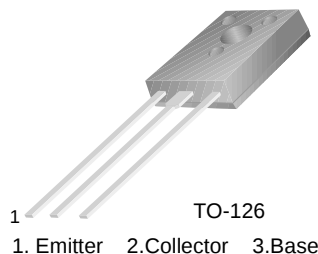


KSA1381

KSA1381

CRT Display, Video Output

- High Collector-Emitter Breakdown Voltage : $V_{CEO} = -300V$
- Low Reverse Transfer Capacitance : $C_{re} = 2.3pF$ at $V_{CB} = -30V$



PNP Epitaxial Silicon Transistor

Absolute Maximum Ratings $T_C = 25^\circ C$ unless otherwise noted

Symbol	Parameter	Ratings	Units
V_{CBO}	Collector-Base Voltage	- 300	V
V_{CEO}	Collector-Emitter Voltage	- 300	V
V_{EBO}	Emitter-Base Voltage	- 5	V
I_C	Collector Current (DC)	- 100	mA
I_{CP}	Collector Current (Pulse)	- 200	mA
P_C	Collector Dissipation ($T_C = 25^\circ C$)	7	W
P_C	Collector Dissipation ($T_a = 25^\circ C$)	1.2	W
T_J	Junction Temperature	150	$^\circ C$
T_{STG}	Storage Temperature	- 55 ~ 150	$^\circ C$

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

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
BV_{CBO}	Collector-Base Breakdown Voltage	$I_C = -10\mu A, I_E = 0$	- 300			V
BV_{CEO}	Collector-Emitter Breakdown Voltage	$I_C = -1mA, I_B = 0$	- 300			V
BV_{EBO}	Emitter-Base Breakdown Voltage	$I_E = -10\mu A, I_C = 0$	- 5			V
I_{CBO}	Collector Cut-off Current	$V_{CB} = -200V, I_E = 0$			- 0.1	μA
I_{EBO}	Emitter Cut-off Current	$V_{EB} = -4V, I_C = 0$			- 0.1	μA
h_{FE}	DC Current Gain	$V_{CE} = -10V, I_C = -10mA$	40		320	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = -20mA, I_B = -2mA$			- 0.6	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = -20mA, I_B = -2mA$			- 1	V
f_T	Current Gain Bandwidth Product	$V_{CE} = -30V, I_C = -10mA$		150		MHz
C_{ob}	Output Capacitance	$V_{CB} = -30V, f = 1MHz$		3.1		pF
C_{re}	Reverse Transfer Capacitance	$V_{CB} = -30V, f = 1MHz$		2.3		pF

h_{FE} Classification

Classification	C	D	E	F
h_{FE}	40 ~ 80	60 ~ 120	100 ~ 200	160 ~ 320

Typical Characteristics

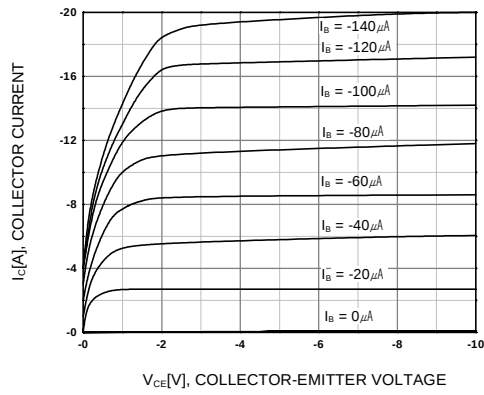


Figure 1. Static Characteristic

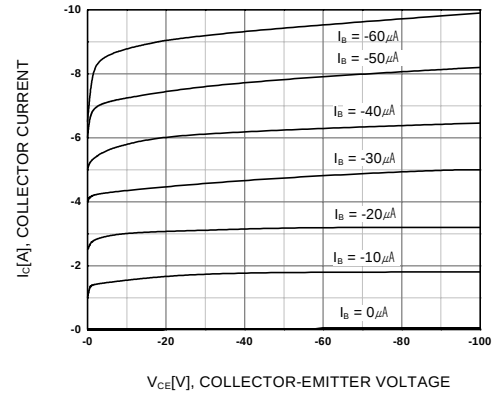


Figure 2. Static Characteristic

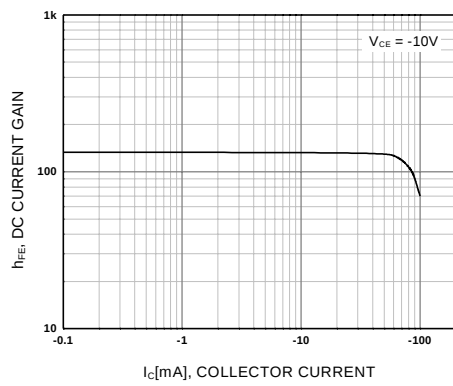


Figure 3. DC current Gain

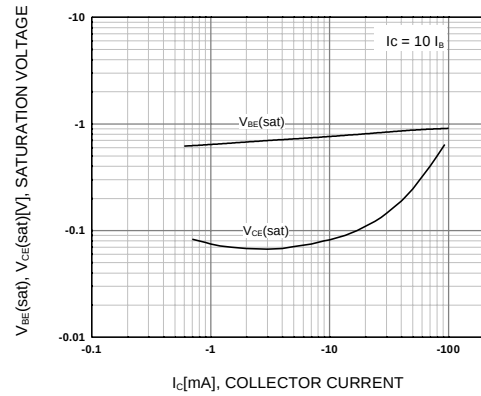


Figure 4. Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

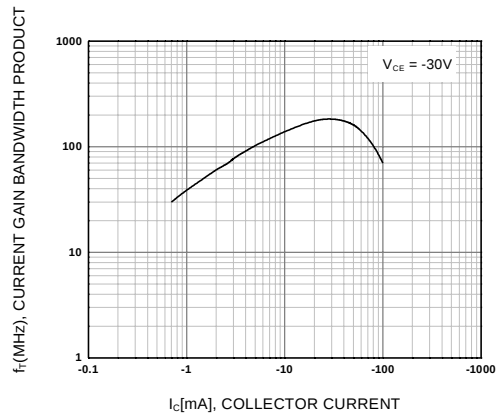


Figure 5. Current Gain Bandwidth Product

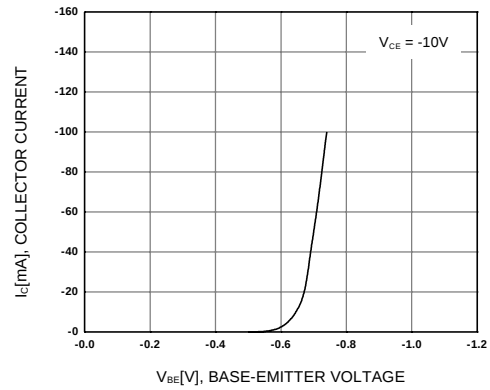


Figure 6. Base-Emitter On Voltage

Typical Characteristics (Continued)

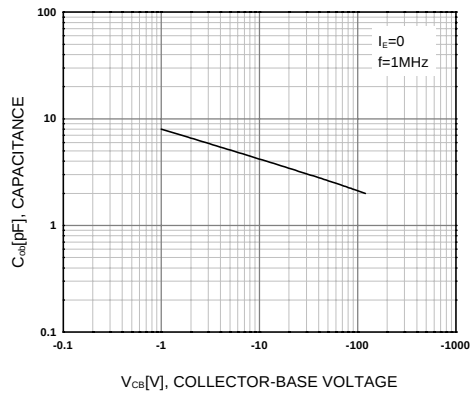


Figure 7. Collector Output Capacitance

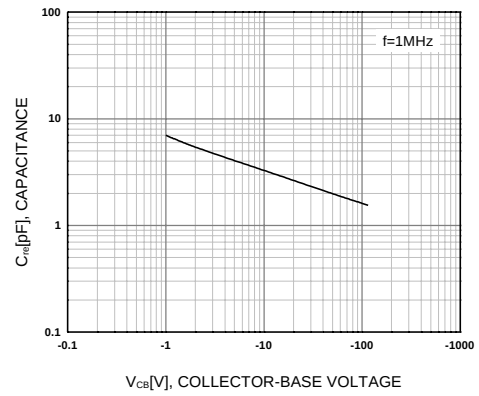


Figure 8. Reverse Transfer Capacitance

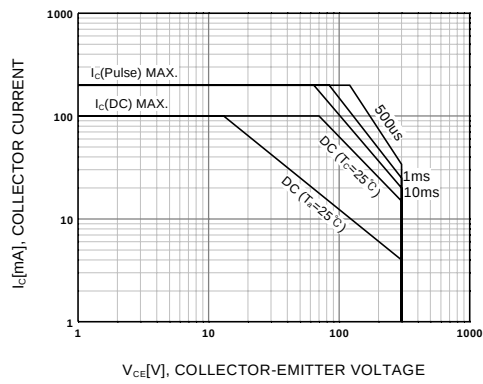


Figure 9. Safe Operating Area

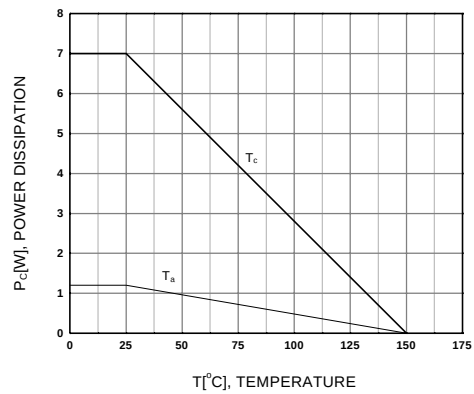


Figure 10. Power Derating

Technical drawing of a 10-pin D-sub connector. The drawing includes a front view (top), a side view (right), and a detail view of the pin (bottom). Dimensions are given in millimeters with tolerances.

Front View Dimensions:

- Overall width: 8.00 ± 0.30
- Overall height: 14.20 MAX
- Pin diameter: $\text{Ø}3.20 \pm 0.10$
- Pin spacing: 2.28 TYP [2.28 ± 0.20]
- Pin length: 13.06 ± 0.30
- Pin diameter (detail): 0.75 ± 0.10
- Pin diameter (detail): 1.60 ± 0.10
- Pin diameter (detail): 0.75 ± 0.10

Side View Dimensions:

- Overall height: 11.00 ± 0.20
- Pin diameter: $0.50^{+0.10}_{-0.05}$
- Pin diameter (detail): 1.75 ± 0.20
- Pin diameter (detail): (1.00)
- Pin diameter (detail): (0.50)

Detail View Dimensions:

- Pin diameter: 0.75 ± 0.10
- Pin diameter (detail): 1.60 ± 0.10
- Pin diameter (detail): 0.75 ± 0.10

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