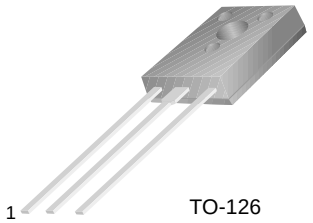
FAIRCHILD
SEMICONDUCTOR®

KSE210

Feature

- Low Collector-Emitter Saturation Voltage
- High Current Gain Bandwidth Product : f_T=65MHz@I_C= -100mA (Min.)
- Complement to KSE200



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1. Emitter 2.Collector 3.Base

PNP Epitaxial Silicon Transistor

Absolute Maximum Ratings T_C=25°C unless otherwise noted

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	- 40	V
V_{CEO}	Collector-Emitter Voltage	- 25	V
V_{EBO}	Emitter-Base Voltage	- 8	V
I_C	Collector Current	- 5	A
P_C	Collector Dissipation (T_C=25°C)	15	W
T_J	Junction Temperature	150	°C
T_{STG}	Storage Temperature	- 65 ~ 150	°C

Electrical Characteristics T_C=25°C unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Max.	Units
BV_{CEO}	Collector-Emitter Breakdown Voltage	I_C = - 10mA, I_B = 0	-25		V
I_{CBO}	Collector Cut-off Current	V_{CB} = -40V, I_E = 0 V_{CB} = - 40V, I_E =0 @ T_J = 125°C		-100 -100	nA μA
I_{EBO}	Emitter Cut-off Current	V_{BE} = - 8V, I_C = 0		-100	nA
h_{FE1} h_{FE2} h_{FE3}	DC Current Gain	V_{CE} = - 1V, I_C = - 500mA V_{CE} = - 1V, I_C = - 2A V_{CE} = - 2V, I_C = - 5A	70 45 10	 180	
V_{CE}(sat)	Collector-Emitter Saturation Voltage	I_C = - 500mA, I_B = - 50mA I_C = - 2A, I_C = - 200mA I_C = - 5A, I_B = - 1A		-0.3 -0.75 -1.8	V V V
V_{BE}(sat)	Base-Emitter Saturation Voltage	I_C = - 5A, I_B = - 1A		-2.5	V
V_{BE}(on)	Base-Emitter On Voltage	V_{CE} = - 1V, I_C = - 2A		-1.6	V
f_T	Current Gain Bandwidth Product	V_{CE} = - 10V, I_C = - 100mA	65		MHz
C_{ob}	Output Capacitance	V_{CB} = - 10V, I_E = 0, f = 1MHz		120	pF

Typical Characteristics

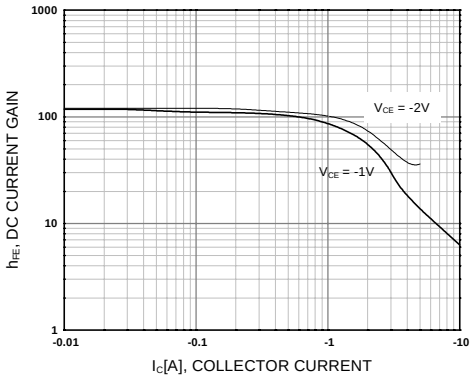

Figure 1. DC current Gain

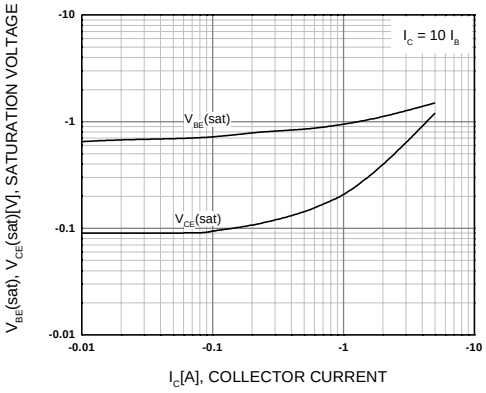

Figure 2. Collector-Emitter Saturation Voltage
Base-Emitter Saturation Voltage

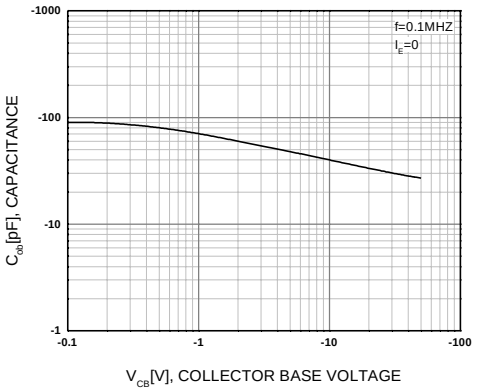

Figure 3. Collector Output Capacitance

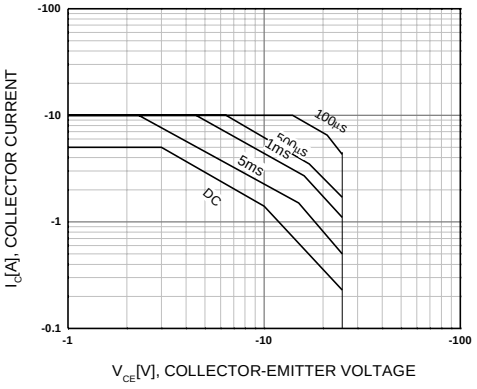

Figure 4. Safe Operating Area

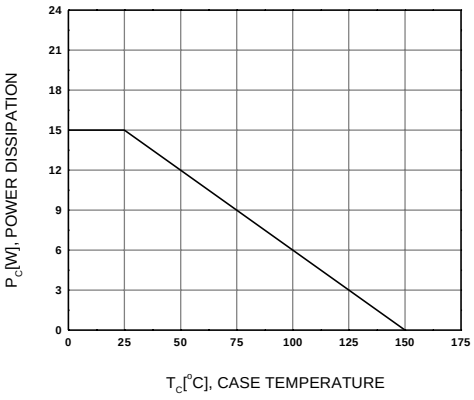

Figure 5. Power Derating

Package Demensions

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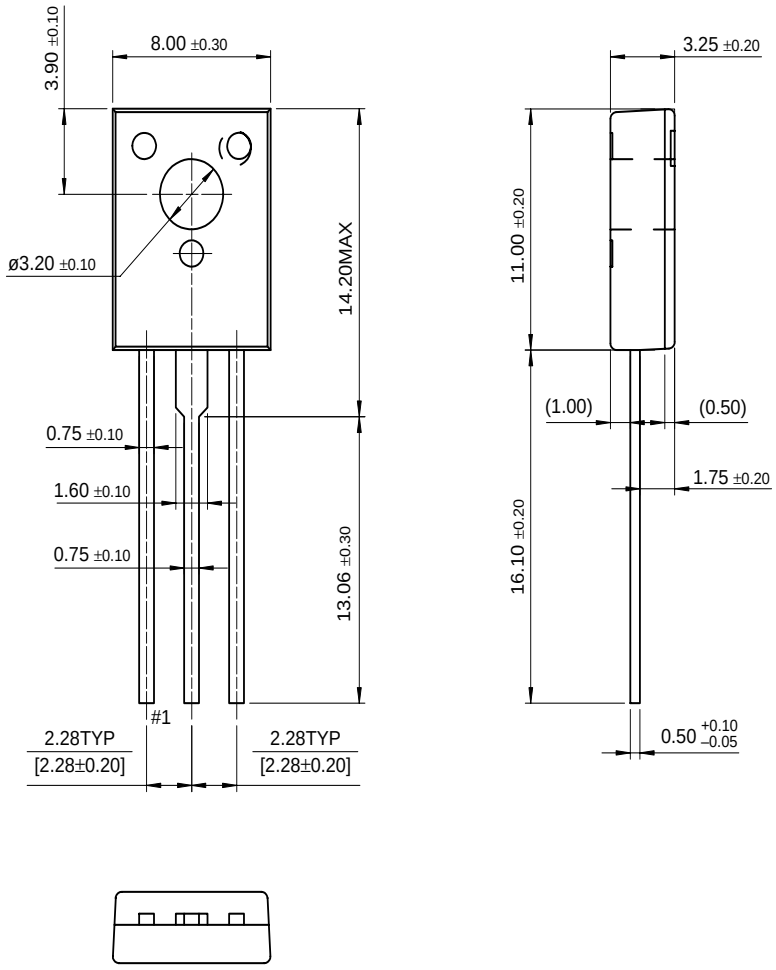

Dimensions in Millimeters

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OPTOLOGIC™
OPTOPLANAR™
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