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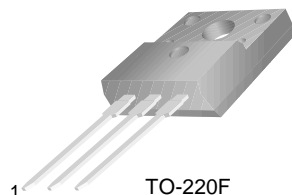
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KSB1017

Power Amplifier Applications

- Complement to KSD1408



TO-220F
1.Base 2.Collector 3.Emitter

PNP Silicon Epitaxial Transistor

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

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	- 80	V
V_{CEO}	Collector-Emitter Voltage	- 80	V
V_{EBO}	Emitter-Base Voltage	- 5	V
I_C	Collector Current	- 4	A
I_B	Base Current	- 0.4	A
P_C	Collector Dissipation ($T_C=25^\circ\text{C}$)	25	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_{CEO}	Collector-Emitter Breakdown Voltage	$I_C = - 50\text{mA}, I_B = 0$	-80			V
I_{CBO}	Collector Cut-off Current	$V_{CB} = - 80\text{V}, I_E = 0$			- 30	μA
I_{EBO}	Emitter Cut-off Current	$V_{EB} = - 5\text{V}, I_C = 0$			- 100	μA
h_{FE1} h_{FE2}	DC Current Gain	$V_{CE} = - 5\text{V}, I_C = - 0.5\text{A}$ $V_{CE} = - 5\text{V}, I_C = - 3\text{A}$	40 15		240	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = - 3\text{A}, I_B = - 0.3\text{A}$		- 1	- 1.7	V
$V_{BE(on)}$	Base-Emitter ON Voltage	$V_{CE} = - 5\text{V}, I_C = - 3\text{A}$		- 1	- 1.5	V
f_T	Current Gain Bandwidth Product	$V_{CE} = - 5\text{V}, I_C = - 0.5\text{A}$		9		MHz
C_{ob}	Output Capacitance	$V_{CB} = - 10\text{V}, f = 1\text{MHz}$		130		pF

h_{FE} Classification

Classification	R	O	Y
h_{FE1}	40 ~ 80	70 ~ 140	120 ~ 240

Typical Characteristics

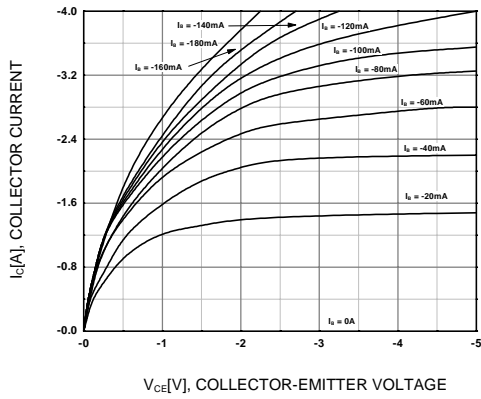


Figure 1. Static Characteristic

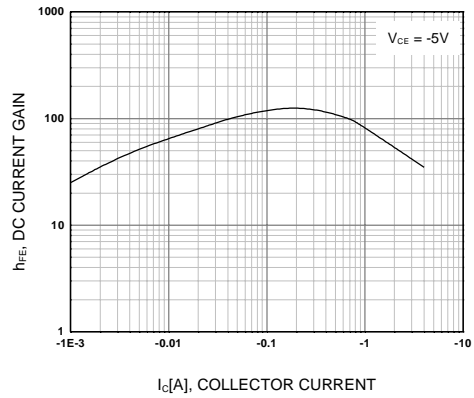


Figure 2. DC current Gain

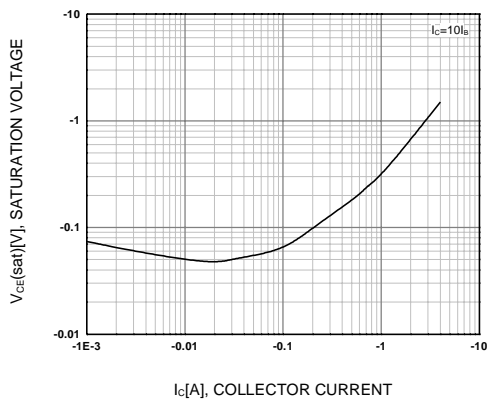


Figure 3. Collector-Emitter Saturation Voltage

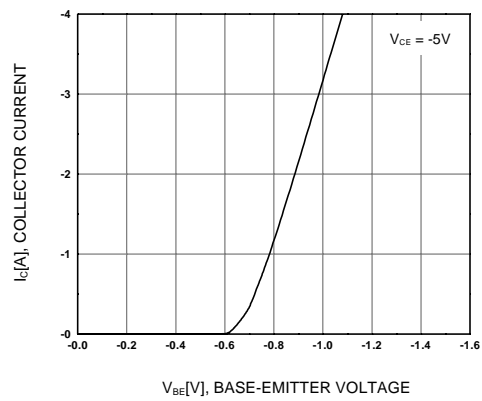


Figure 4. Base-Emitter On Voltage

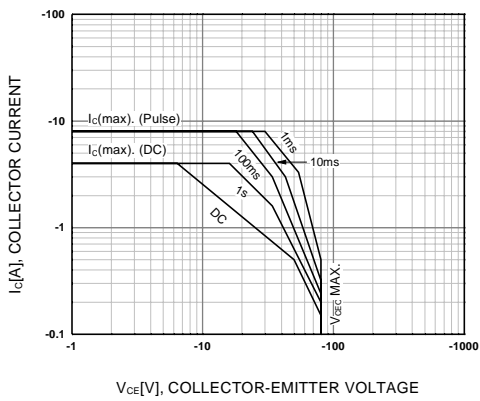


Figure 5. Safe Operating Area

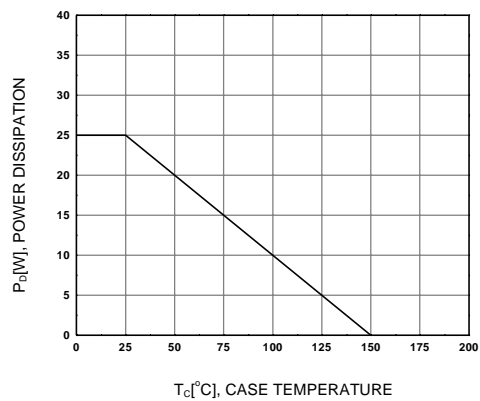
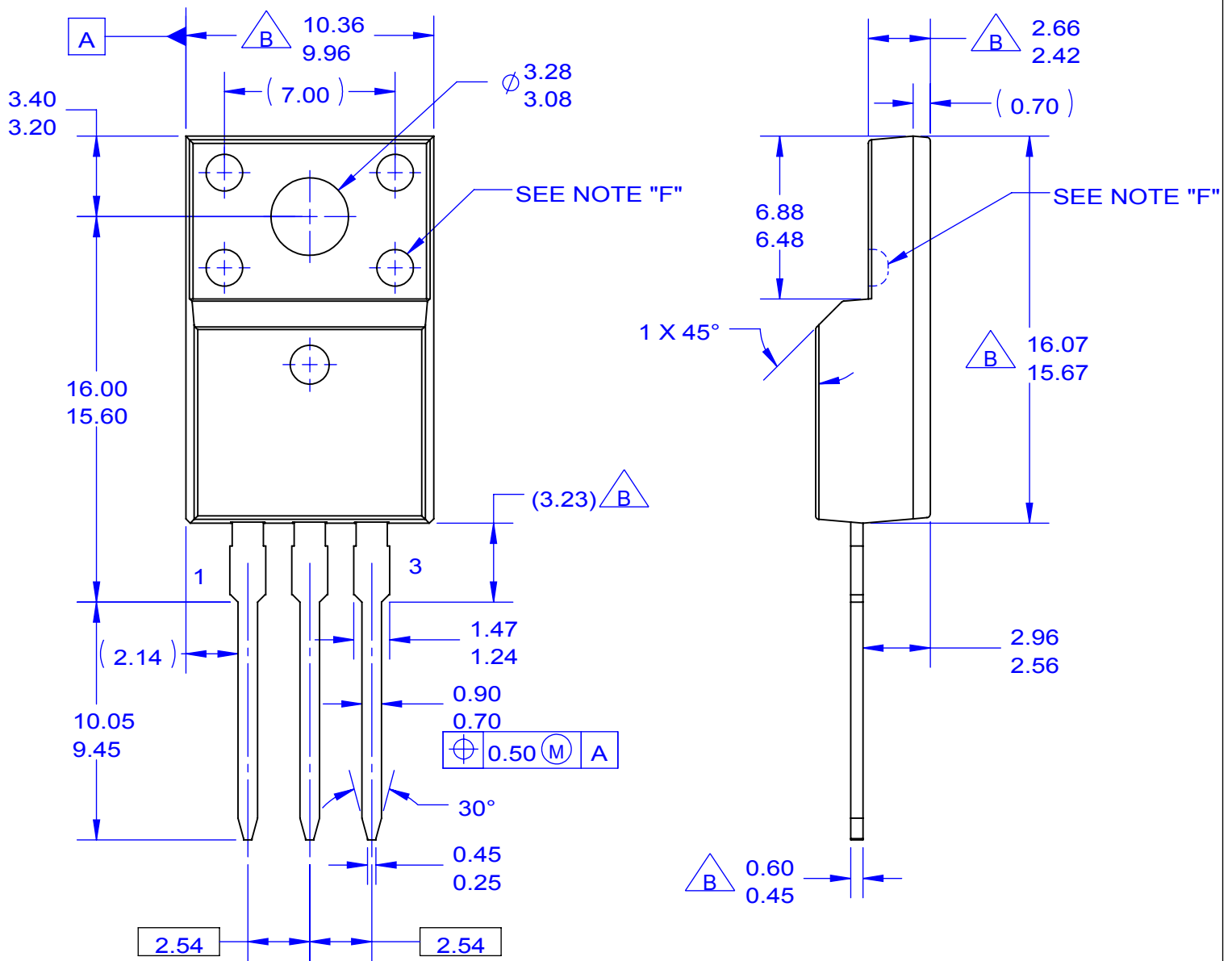


Figure 6. Power Derating



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NOTES:

- A. EXCEPT WHERE NOTED CONFORMS TO EIAJ SC91A.
- B.** DOES NOT COMPLY EIAJ STD. VALUE.
- C. ALL DIMENSIONS ARE IN MILLIMETERS.
- D. DIMENSIONS ARE EXCLUSIVE OF BURRS, MOLD FLASH AND TIE BAR PROTRUSIONS.
- E. DIMENSION AND TOLERANCE AS PER ASME Y14.5-1994.
- F. OPTION 1 - WITH SUPPORT PIN HOLE.
OPTION 2 - NO SUPPORT PIN HOLE.
- G. DRAWING FILE NAME: TO220M03REV5

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