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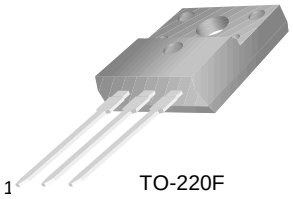
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KSC3296

Power Amplifier Applications

- Complement to KSA1304



1 TO-220F

1.Base 2.Collector 3.Emitter

NPN Epitaxial Silicon Transistor

Absolute Maximum Ratings T_C=25°C unless otherwise noted

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	150	V
V_{CEO}	Collector-Emitter Voltage	150	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current(DC)	1.5	A
I_B	Base Current	0.5	A
P_C	Collector Dissipation (T_C=25°C)	20	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
I_{CBO}	Collector Cut-off Current	V_{CB} = 120V, I_E = 0			10	μA
I_{EBO}	Emitter Cut-off Current	V_{EB} = 5V, I_C = 0			10	μA
h_{FE}	DC Current Gain	V_{CE} = 10V, I_C = 500mA	40	75	140	
V_{CE}(sat)	Collector-Emitter Saturation Voltage	I_C = 500mA, I_B = 50mA			1.5	V
V_{BE}(on)	Base-Emitter ON Voltage	V_{CE} = 10V, I_C = 500mA	0.65	0.75	0.85	V
f_T	Current Gain Bandwidth Product	V_{CE} = 10V, I_C = 500mA		4		MHz
C_{ob}	Output Capacitance	V_{CB} = 10V, f = 1MHz		35		pF

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Typical Characteristics

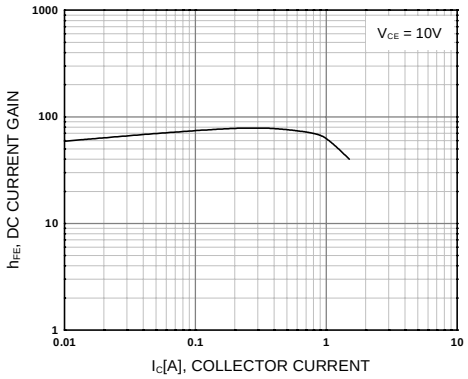


Figure 1. DC current Gain

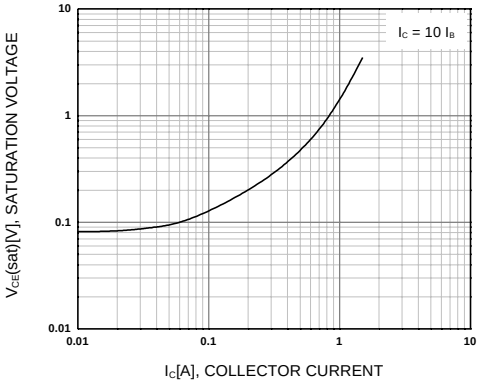


Figure 2. Collector-Emitter Saturation Voltage

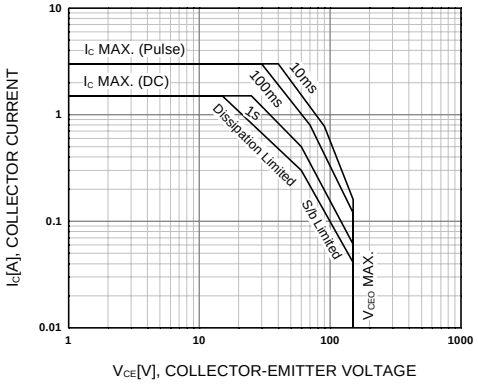


Figure 3. Safe Operating Area

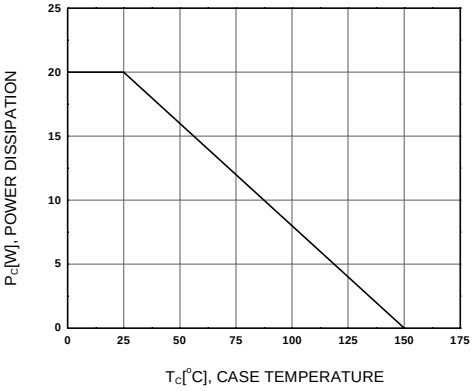
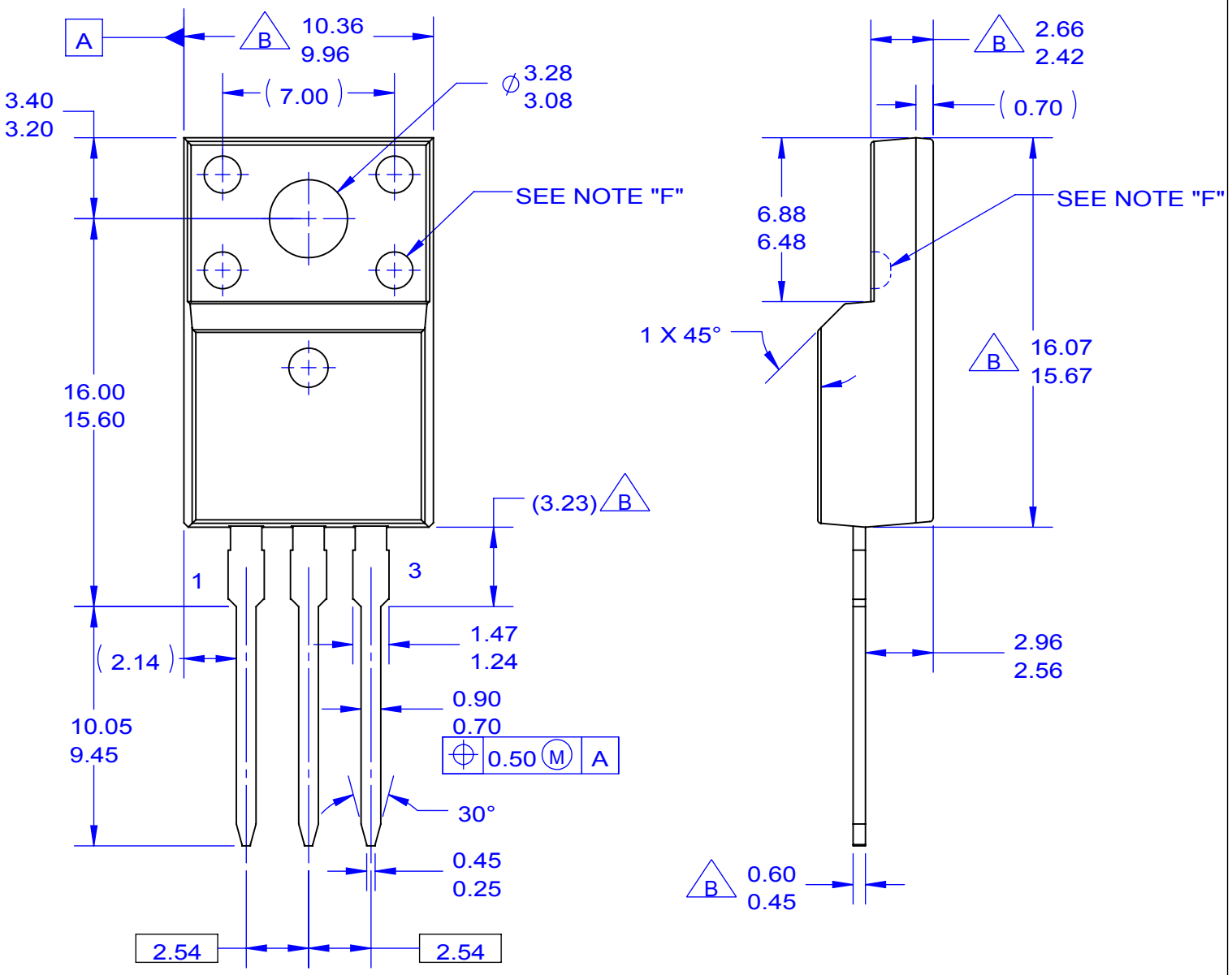
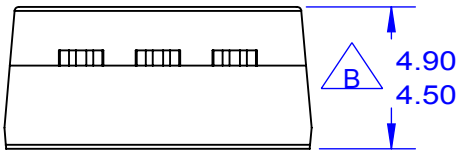


Figure 4. Power Derating

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