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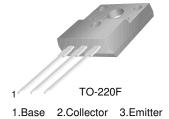
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KSB1015

Low Frequency Power Amplifier

- Low Collector Emitter Saturation Voltage
- Complement to KSD1406



PNP Epitaxial Silicon Transistor

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

Symbol	Parameter	Value	Units	
V _{CBO}	Collector-Base Voltage	- 60	V	
V _{CEO}	Collector-Emitter Voltage	- 60	V	
V _{EBO}	Emitter-Base Voltage	- 7	V	
I _C	Collector Current(DC)	- 3	Α	
I _B	Base Current	- 0.5	Α	
P _C	Collector Dissipation (T _C =25°C)	25	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.	Тур.	Max.	Units
BV _{CEO}	Collector-Emitter Breakdown Voltage	$I_C = -50 \text{mA}, I_B = 0$	- 60			V
I _{CBO}	Collector Cut-off Current	$V_{CB} = -60V, I_{E} = 0$			- 100	μΑ
I _{EBO}	Emitter Cut-off Current	$V_{EB} = -7V, I_{C} = 0$			- 100	μΑ
h _{FE1}	DC Current Gain	$V_{CE} = -5V, I_{C} = -0.5A$	60		200	
h _{FE2}		$V_{CE} = -5V, I_{C} = -3A$	20			
V _{CE} (sat)	Collector-Emitter Saturation Voltage	$I_C = -3A$, $I_B = -0.3A$		- 0.5	- 1	V
V _{BE} (on)	Base-Emitter ON Voltage	$V_{CE} = -5V, I_{C} = -0.5A$		- 0.7	- 1	V
f _T	Current Gain Bandwidth Product	$V_{CE} = -5V, I_{C} = -0.5A$		9		MHz
C _{ob}	Output Capacitance	V _{CB} = - 10V, f = 1MHz		150		pF
t _{ON}	Turn ON Time	$V_{CC} = -30V, I_{C} = -1A$		0.4		μs
t _{STG}	Storage Time	$I_{B1} = -I_{B2} = -0.2A$		1.7		μs
t _F	Fall Time	$R_L = 30\Omega$		0.5		μs

h_{FE} Classification

Classification	0	Y
h _{FE1}	60 ~ 120	100 ~ 200

Typical Characteristics

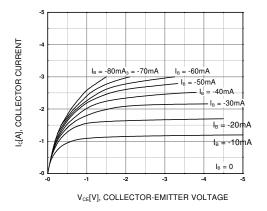


Figure 1. Static Characteristic

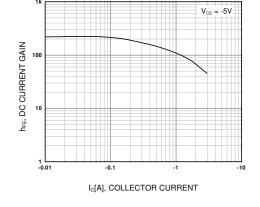


Figure 2. DC current Gain

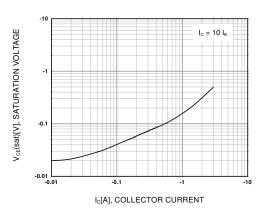


Figure 3. Collector-Emitter Saturation Voltage

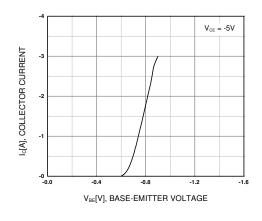


Figure 4. Base-Emitter On Voltage

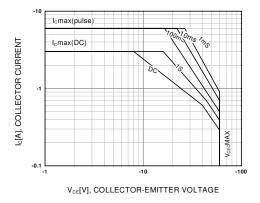


Figure 5. Safe Operating Area

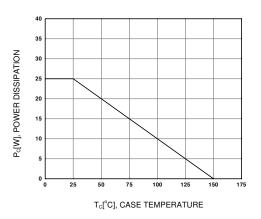
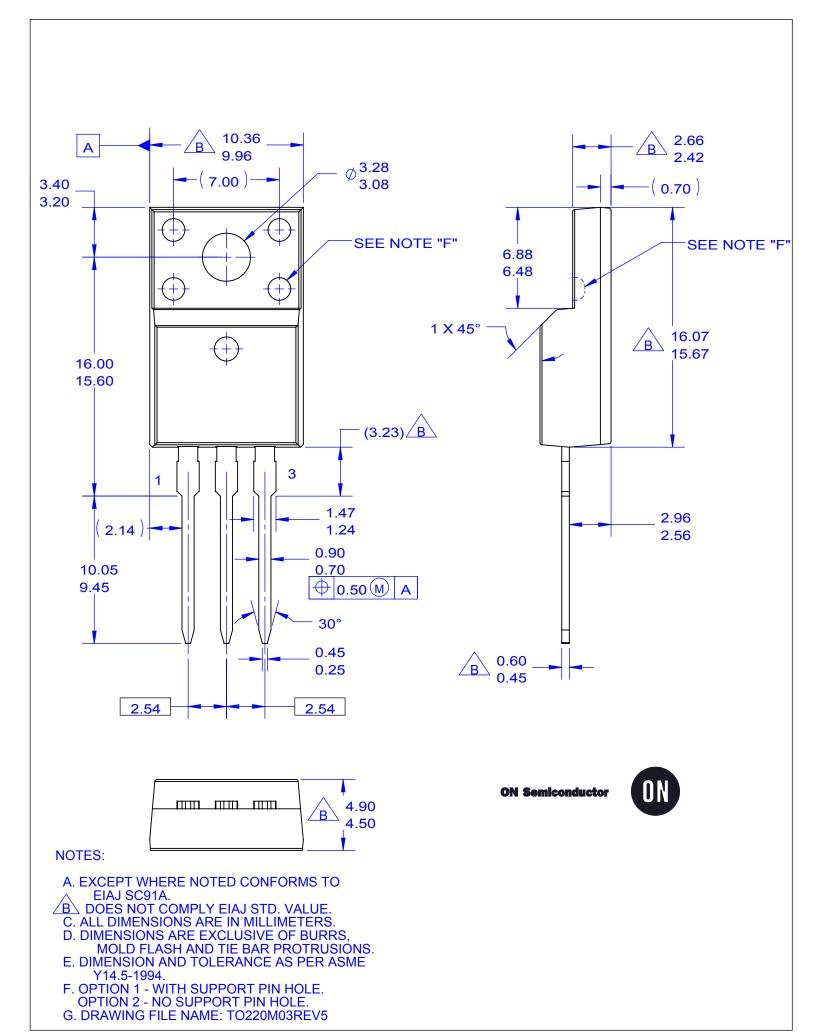


Figure 6. Power Derating

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