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KSB596

Power Amplifier Applications

• Complement to KSD526



1.Base 2.Collector 3.Emitter

PNP Epitaxial Silicon Transistor

Absolute Maximum Ratings T_{C} =25°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(DC)	- 4	Α
I _B	Base Current	- 0.4	Α
P _C	Collector Dissipation (T _C =25°C)	30	W
T _J	Junction Temperature	150	°C
T _{STG}	Storage Temperature	- 55 ~ 150	°C

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

Symbol	Parameter	Test Condition	Min.	Тур.	Max.	Units
BV _{CEO}	Collector-Emitter Breakdown Voltage	$I_C = -50 \text{mA}, I_B = 0$	- 80			V
BV _{EBO}	Emitter-Base Breakdown Voltage	$I_E = -10 \text{mA}, I_C = 0$	- 5			V
I _{CBO}	Collector Cut-off Current	$V_{CB} = -80V, I_{E} = 0$			- 70	μΑ
I _{EBO}	Emitter Cut-off Current	$V_{EB} = -5V, I_{C} = 0$			- 100	μΑ
h _{FE1}	DC Current Gain	$V_{CE} = -5V, I_{C} = -0.5A$	40		240	
h_{FE2}		$V_{CE} = -5V, I_{C} = -3A$	15			
V _{CE} (sat)	Collector-Emitter Saturation Voltage	$I_C = -3A, I_B = -0.3A$		- 1	- 1.7	V
V _{BE} (on)	Base-Emitter ON Voltage	V _{CE} = - 5V, I _C = - 3A		- 1	- 1.5	V
f _T	Current Gain Bandwidth Product	$V_{CE} = -5V, I_{C} = -0.5A$	3			MHz
C _{ob}	Output Capacitance	V _{CB} = - 10V, I _E = 0 f = 1MHz		130		pF

h_{FE} Classification

Classification	R	0	Υ
h _{FE1}	40 ~ 80	70 ~ 140	120 ~ 240

Typical Characteristics

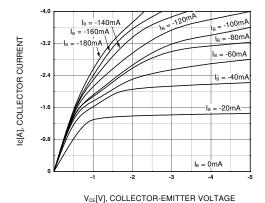


Figure 1. Static Characteristic

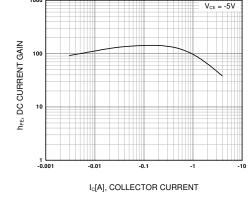


Figure 2. DC current Gain

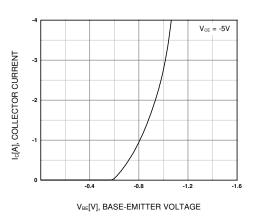


Figure 3. Base-Emitter Saturation Voltage

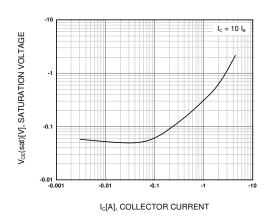


Figure 4. Collector-Emitter Saturation Voltage

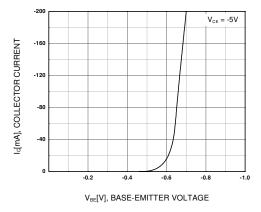


Figure 5. Base-Emitter On Voltage

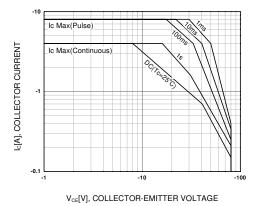


Figure 6. Safe Operating Area

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Typical Characteristics (Continued)

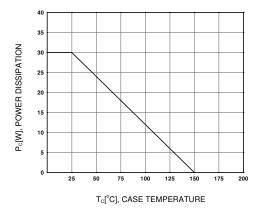
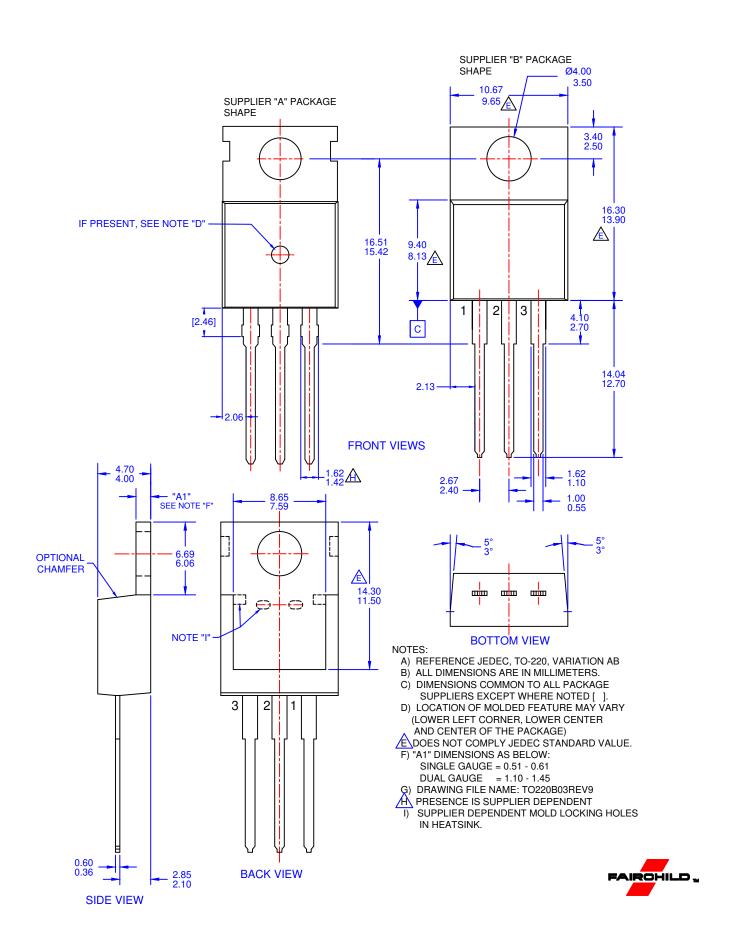


Figure 1. Power Derating

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