

KSB907

Power Amplifier Applications

- High DC Current Gain
- Low Collector-Emitter Saturation Voltage
- Built-in Damper Diode at E-C
- Darlington TR
- Complement to KSD1222



PNP Silicon Darlington 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	- 40	V
V _{EBO}	Emitter-Base Voltage	- 5	V
I _C	Collector Current(DC)	- 3	Α
I _B	Base Current	- 0.3	Α
P _C	Collector Dissipation (T _a =25°C)	15	W
P _C	Collector Dissipation (T _C =25°C)	1	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	$I_C = -25 \text{mA}, I_B = 0$	- 40			V
I _{CBO}	Collector Cut-off Current	$V_{CB} = -60V, I_{E} = 0$			- 20	μΑ
I _{EBO}	Emitter Cut-off Current	$V_{EB} = -5V, I_{C} = 0$			- 2.5	μΑ
h _{FE1} h _{FE2}	DC Current Gain	$V_{CE} = -2V, I_{C} = -1A$ $V_{CE} = -2V, I_{C} = -3A$	2000 1000			
V _{CE} (sat)	Collector-Emitter Saturation Voltage	$I_C = -2A, I_B = -4mA$			- 1.5	V
V _{BE} (sat)	Base-Emitter Saturation Voltage	$I_C = -2A, I_B = -4mA$			- 2	V
t _{ON}	Turn ON Time	$V_{CC} = -30V, I_{C} = -3A$		0.3		μs
t _{STG}	Storage Time	$I_{B1} = -I_{B2} = -6mA$		0.6		μs
t _F	Fall Time	$R_L = 10\Omega$		0.25		μs

Typical Characteristics

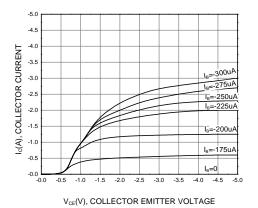
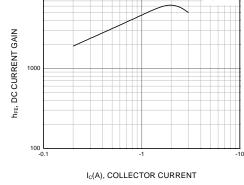


Figure 1. Static Characteristic



10000

Figure 2. DC current Gain

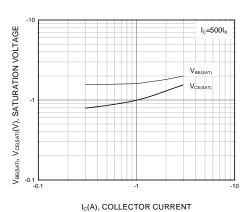


Figure 3. Base-Emitter Saturation Voltage Collector-Emitter Saturation Voltage

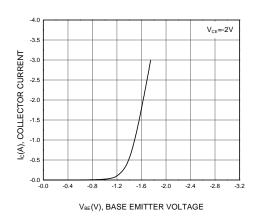


Figure 4. Base-Emitter On Voltage

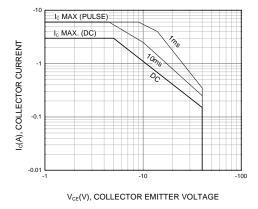
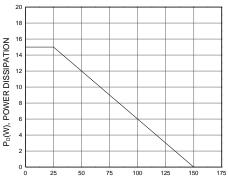


Figure 5. Safe Operating Area



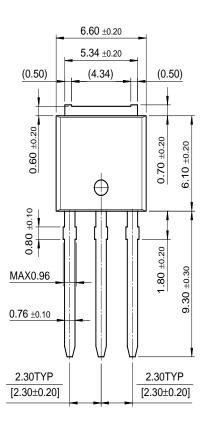
T_c(°C) CASE TEMPERATURE

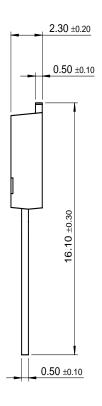
Figure 6. Power Derating

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Package Demensions

I-PAK







Dimensions in Millimeters

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