

KSD526 NPN Epitaxial Silicon Transistor

Power Amplifier Applications

Complement to KSB596



1.Base 2.Collector 3.Emitter

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

* These ratings are limiting values above which the serviceability of any semiconductor device may by impaired.

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

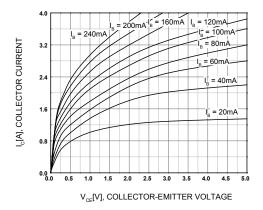
Symbol	Parameter	Test Condition	MIN	MAX	MAX	Units
I _{CBO}	Collector Cut-off Current	V _{CB} = 80V, I _E = 0			30	μA
I _{EBO}	Emitter Cut-off Current	V _{EB} = 5V, I _C = 0			100	μA
BV _{CEO}	Collector-Emitter Breakdown Voltage	I _C = 50mA, I _B = 0	80			V
BV _{EBO}	Emitter-Base Breakdown Voltage	I _E = 10mA, I _C = 0	5			V
hfe	DC Current Gain	$V_{CE} = 5V, I_C = 0.5A$ $V_{CE} = 5V, I_C = 3A$	40 15	50	240	
Vce(sat)	Collector-Emitter Saturation Voltage	I _C = 3A, I _B = 0.3A		0.45	1.5	V
VBE(on)	Base-Emitter On Voltage	V _{CE} = 5V, I _C = 3A		1	1.5	V
fr	Current Gain - Bandwidth Product	V _{CE} = 5V, I _C = 0.5A	3	8		MHz
Ccb	Collector Output Capacitance	V _{CB} = 10V, I _E = 0, f = 1MHz		90		pF

h_{FE} Classification

Classification	R	0	Y
h _{FE}	40~80	70~140	120~240

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Typical Characteristics



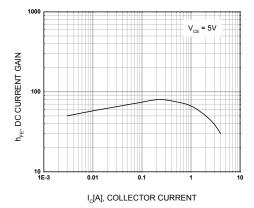
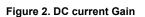
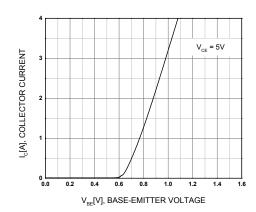


Figure 1. Static Characteristic







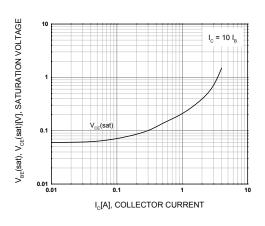


Figure 4. Collector-Emitter Saturation Voltage

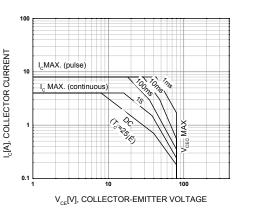


Figure 5. Safe Operating Area

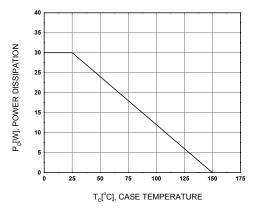
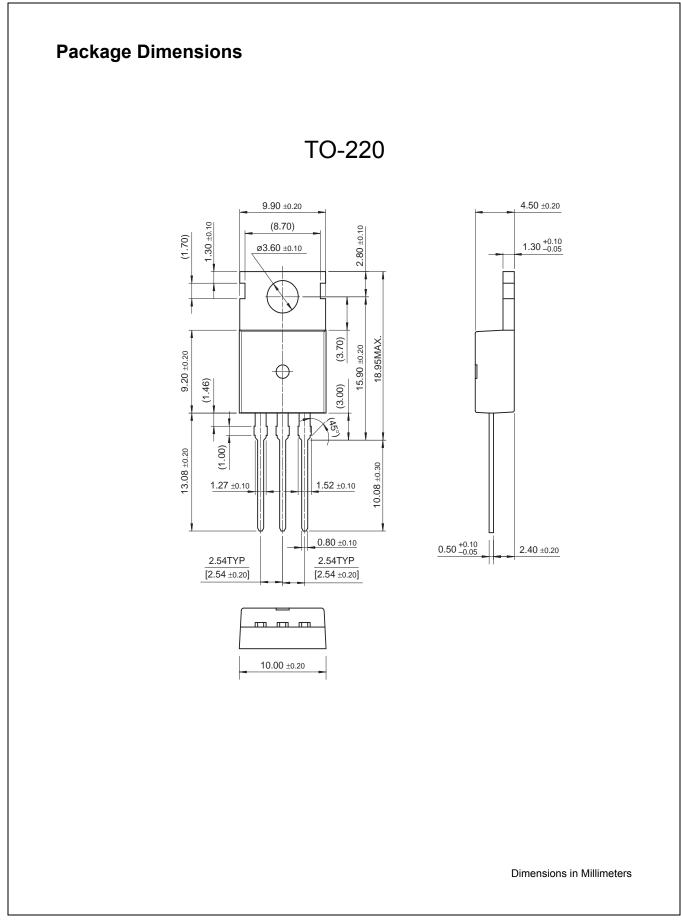


Figure 6. Power Derating



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