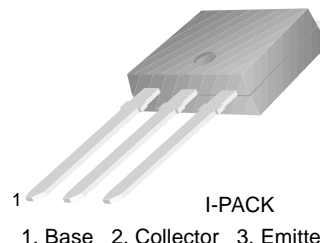


Power Amplifier Applications

- Complement to KSC3073



PNP Epitaxial Silicon Transistor

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

Symbol	Parameter	Ratings	Units
V_{CBO}	Collector-Base Voltage	- 30	V
V_{CEO}	Collector-Emitter Voltage	- 30	V
V_{EBO}	Emitter-Base Voltage	- 5	V
I_B	Base Current	- 0.6	A
I_C	Collector Current	- 3	A
P_C	Collector Dissipation ($T_a=25^\circ\text{C}$)	1	W
P_C	Collector Dissipation ($T_C=25^\circ\text{C}$)	10	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{STG}	Storage Temperature	- 55 ~ 150	$^\circ\text{C}$

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

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
BV_{CEO}	Collector-Emitter Breakdown Voltage	$I_C = -10\text{mA}, I_B = 0$	- 30			V
BV_{EBO}	Emitter-Base Breakdown Voltage	$I_E = -1\text{mA}, I_C = 0$	- 5			V
I_{CBO}	Collector Cut-off Current	$V_{CB} = -20\text{V}, I_E = 0$			- 1	μA
I_{EBO}	Emitter Cut-off Current	$V_{EB} = -5\text{V}, I_C = 0$			- 1	μA
h_{FE1} h_{FE2}	DC Current Gain	$V_{CE} = -2\text{V}, I_C = -0.5\text{A}$ $V_{CE} = -2\text{V}, I_C = -2.5\text{A}$	70 25		240	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = -2\text{A}, I_B = -0.2\text{A}$		- 0.3	- 0.8	V
$V_{BE(on)}$	Base-Emitter ON Voltage	$V_{CE} = -2\text{V}, I_C = -0.5\text{A}$		- 0.75	- 1	V
f_T	Current Gain Bandwidth Product	$V_{CE} = -2\text{V}, I_C = -0.5\text{A}$		100		MHz
C_{ob}	Output Capacitance	$V_{CB} = -10\text{V}, f = 1\text{MHz}$		40		pF

h_{FE} Classification

Classification	O	Y
h_{FE1}	70 ~ 140	120 ~ 240

Typical Characteristics

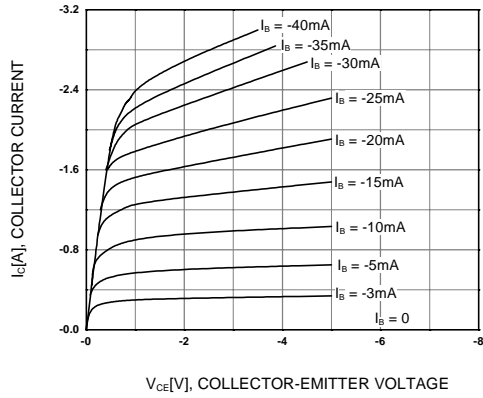


Figure 1. Static Characteristic

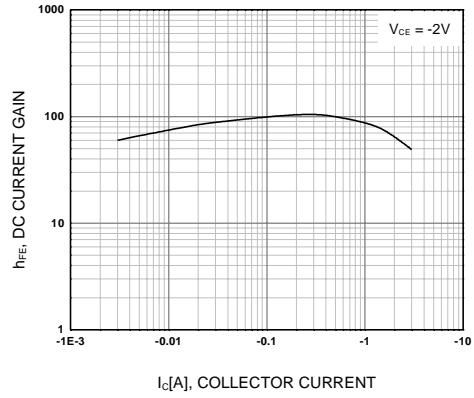


Figure 2. DC current Gain

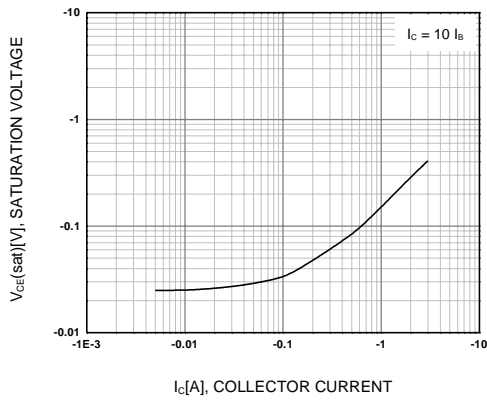


Figure 3. Collector-Emitter Saturation Voltage

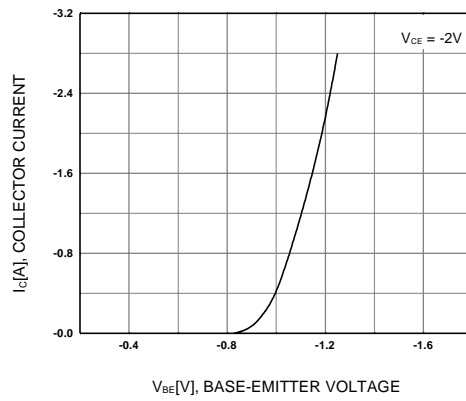


Figure 4. Base-Emitter On Voltage

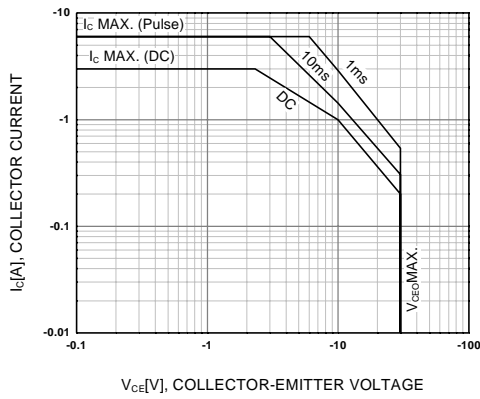


Figure 5. Safe Operating Area

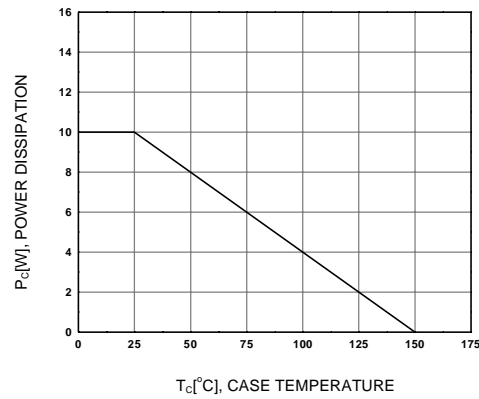


Figure 6. Power Derating

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