

KSD73

Low Frequency High Power Amplifier

- Collector-Base Voltage : $V_{CBO} = 100V$
- Collector Current : $I_C = 5A$
- Collector Dissipation : $P_C = 30W$ ($T_C=25^\circ C$)



TO-220
1.Base 2.Collector 3.Emitter

NPN Epitaxial Silicon Transistor

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

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	100	V
V_{CEO}	Collector-Emitter Voltage	60	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current	5	A
P_C	Collector Dissipation ($T_C=25^\circ C$)	30	W
T_J	Junction Temperature	150	$^\circ C$
T_{STG}	Storage Temperature	- 55 ~ 150	$^\circ C$

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

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
BV_{CBO}	Collector-Base Breakdown Voltage	$I_C = 1mA, I_E = 0$	100			V
BV_{CEO}	Collector-Emitter Breakdown Voltage	$I_C = 20mA, I_B = 0$	60			V
BV_{EBO}	Emitter-Base Breakdown Voltage	$I_E = 1mA, I_C = 0$	5			V
I_{CBO}	Collector Cut-off Current	$V_{CB} = 100V, I_E = 0$			5	mA
h_{FE}	DC Current Gain	$V_{CE} = 10V, I_C = 1.0A$	70		240	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = 5A, I_B = 0.5A$			2.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = 5A, I_B = 0.5A$			1.5	V
f_T	Current Gain Bandwidth Product	$V_{CE} = 10V, I_C = 0.3A$		20		MHz
$V_{BE(on)}$	Base-Emitter ON Voltage	$V_{CE} = 10V, I_E = 1.0A$		0.75		V

h_{FE} Classification

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

Typical Characteristics

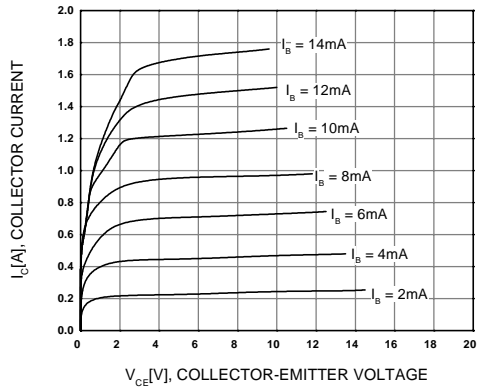


Figure 1. Static Characteristic

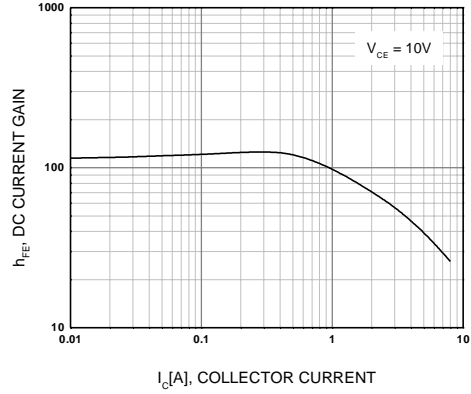


Figure 2. DC current Gain

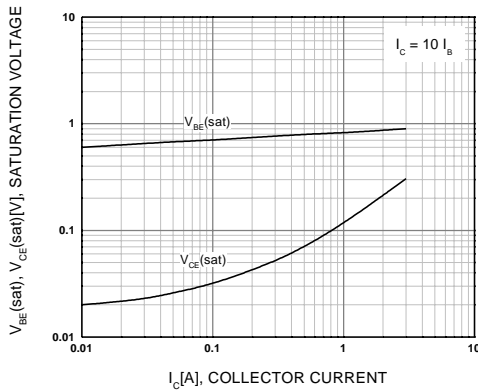


Figure 3. Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

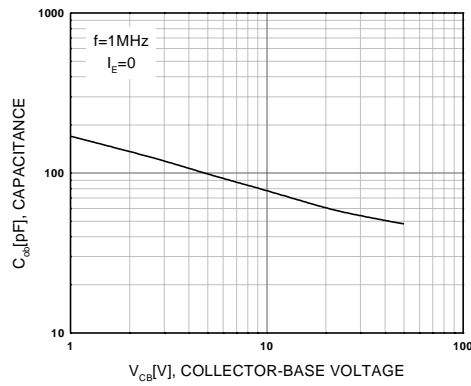


Figure 4. Collector Output Capacitance

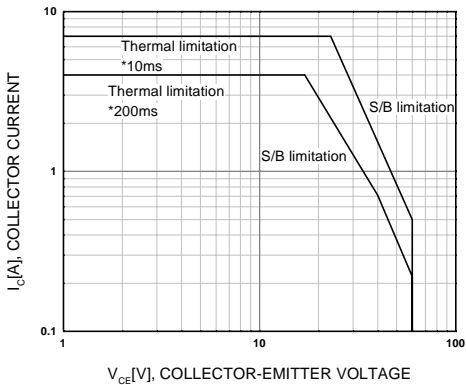


Figure 5. Safe Operating Area

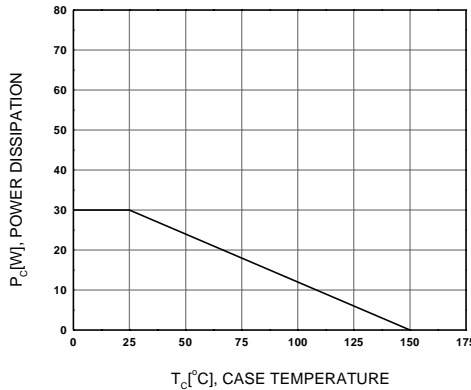


Figure 6. Power Derating

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