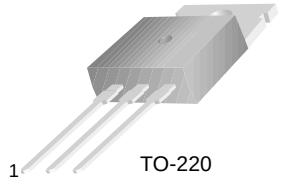
FAIRCHILD
SEMICONDUCTOR TM

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°C)



TO-220

1.Base 2.Collector 3.Emitter

NPN Epitaxial Silicon Transistor

Absolute Maximum Ratings T_C=25°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°C)	30	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.	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

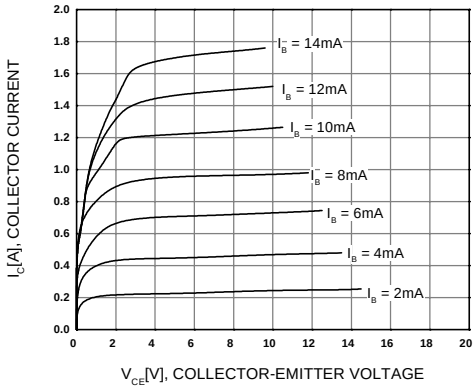


Figure 1. Static Characteristic

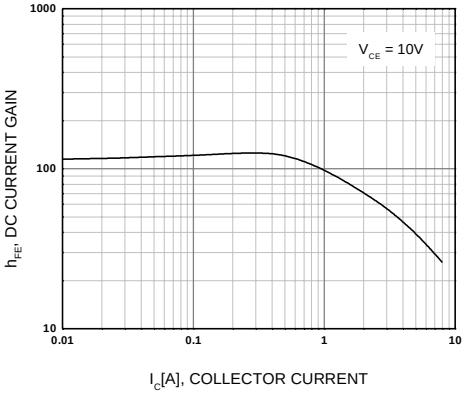


Figure 2. DC current Gain

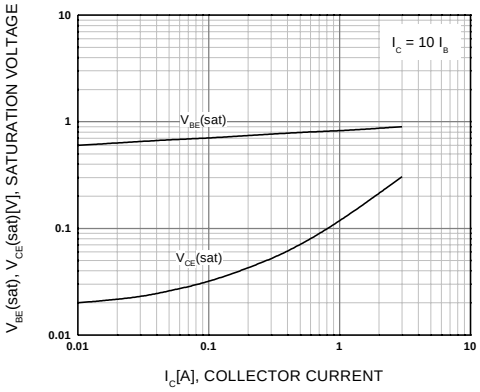


Figure 3. Base-Emitter Saturation Voltage Collector-Emitter Saturation Voltage

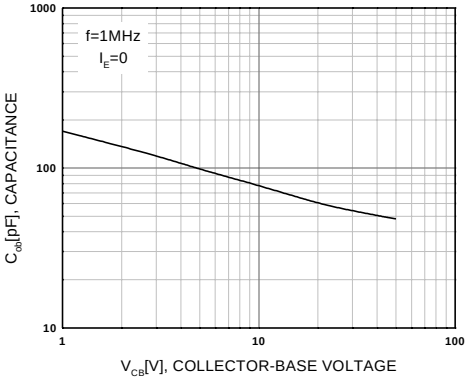


Figure 4. Collector Output Capacitance

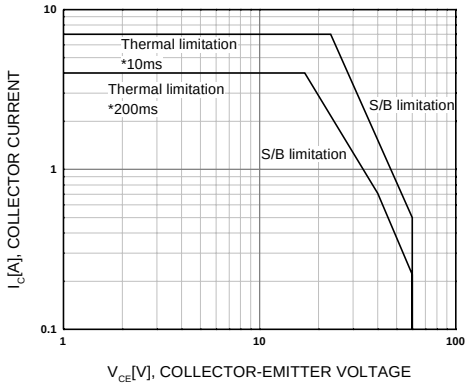


Figure 5. Safe Operating Area

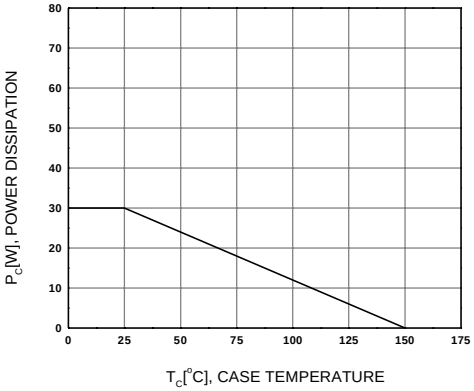


Figure 6. Power Derating

Package Demensions

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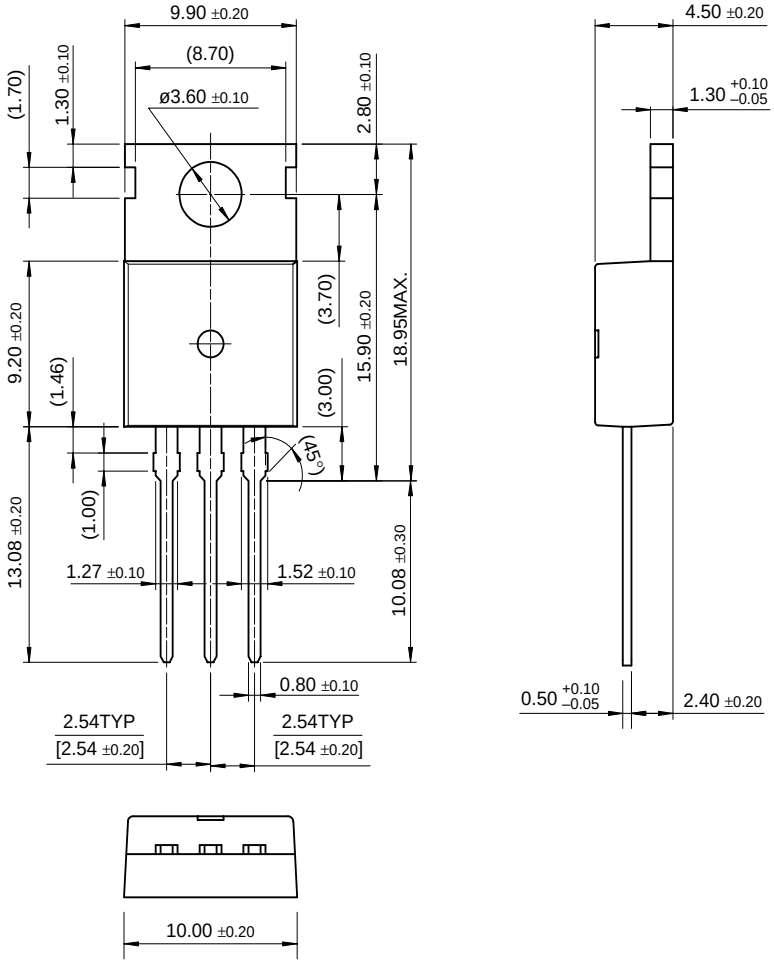

Dimensions in Millimeters

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