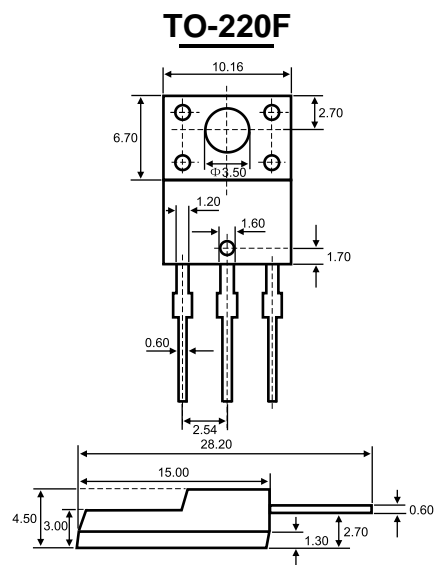


1. BASE
2. COLLECTOR
3. EMITTE

### Features

- ✧ Low Frequency Amplifier
- ✧ Medium Speed Switching



Dimensions in inches and (millimeters)

### MAXIMUM RATINGS ( $T_A=25^\circ\text{C}$ unless otherwise noted)

Symbol	Parameter	Value	Units
$V_{CBO}$	Collector-Base Voltage	-80	V
$V_{CEO}$	Collector-Emitter Voltage	-55	V
$V_{EBO}$	Emitter-Base Voltage	-5	V
$I_C$	Collector Current -Continuous	-3	A
$P_C$	Collector Dissipation	2	W
$T_J$	Junction Temperature	150	$^\circ\text{C}$
$T_{stg}$	Storage Temperature	-55 to +150	$^\circ\text{C}$

### ELECTRICAL CHARACTERISTICS( $T_{amb}=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V(BR)_{CBO}$	$I_C = -500\mu\text{A}$ , $I_E = 0$	-80			V
Collector-emitter breakdown voltage	$V(BR)_{CEO}$	$I_C = -10\text{mA}$ , $I_B = 0$	-55			V
Emitter-base breakdown voltage	$V(BR)_{EBO}$	$I_E = -500\mu\text{A}$ , $I_C = 0$	-5			V
Collector cut-off current	$I_{CBO}$	$V_{CB} = -50\text{V}$ , $I_E = 0$			-50	$\mu\text{A}$
Emitter cut-off current	$I_{EBO}$	$V_{EB} = -4\text{V}$ , $I_C = 0$			-50	$\mu\text{A}$
DC current gain	$h_{FE}$	$V_{CE} = -5\text{V}$ , $I_C = -500\text{mA}$	40		240	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -1\text{A}$ , $I_B = -100\text{mA}$			-0.5	V

### CLASSIFICATION OF $h_{FE}$

Rank	R	O	Y
Range	40-80	70-140	120-240

## Typical Characteristics

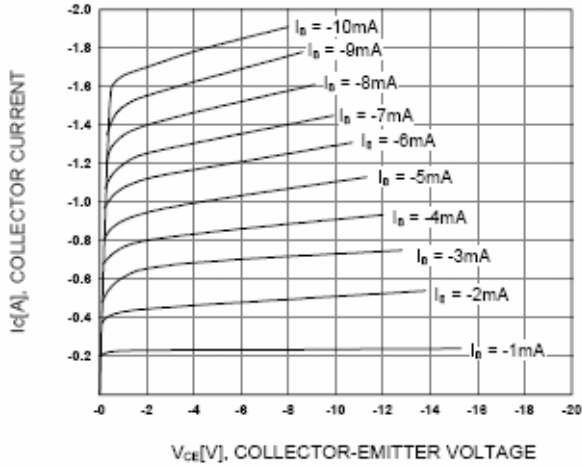


Figure 1. Static Characteristic

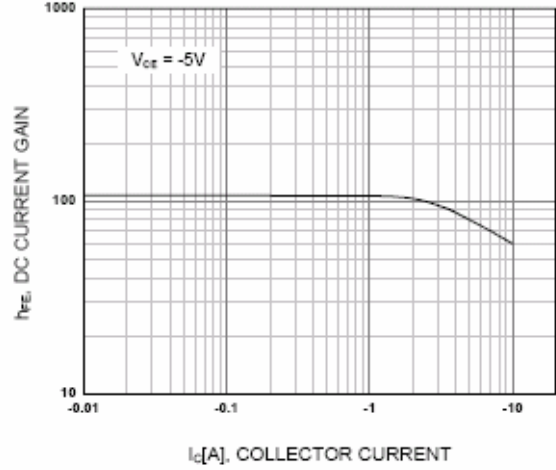


Figure 2. DC current Gain

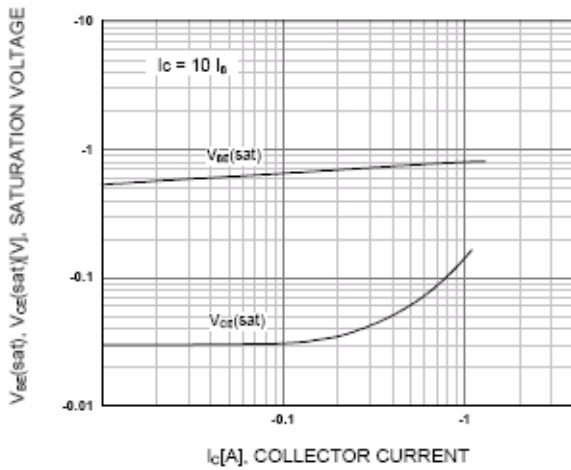


Figure 3. Base-Emitter Saturation Voltage  
Collector-Emitter Saturation Voltage

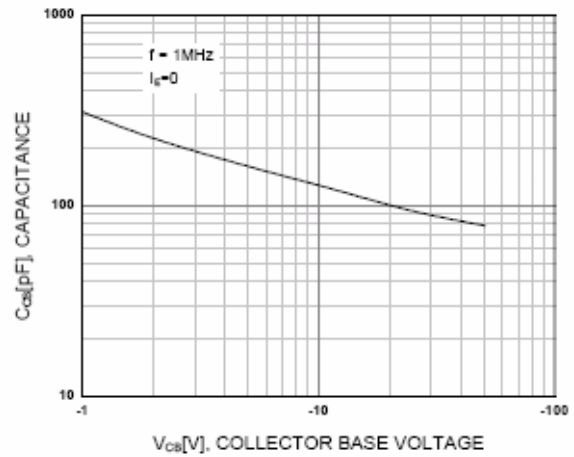


Figure 4. Collector Output Capacitance

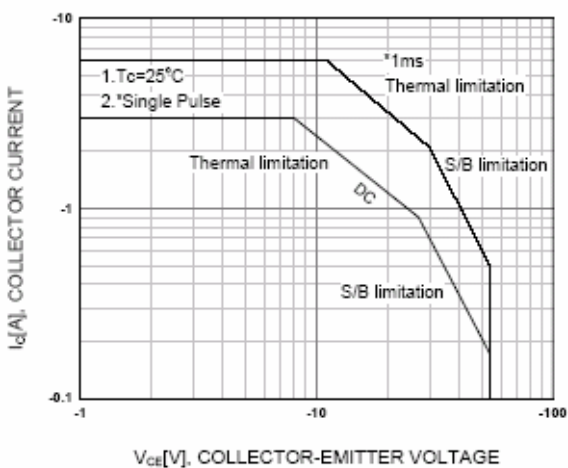


Figure 5. Safe Operating Area

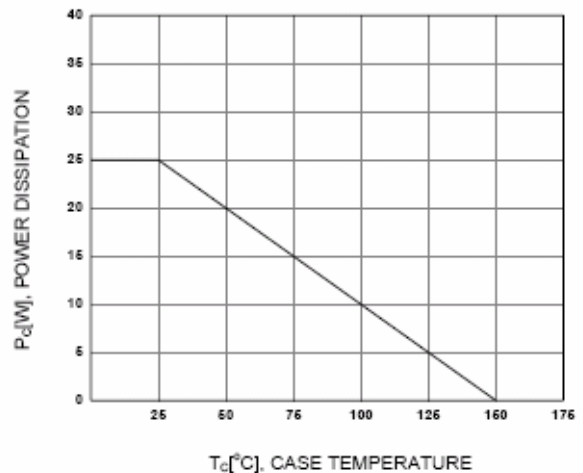


Figure 6. Power Derating