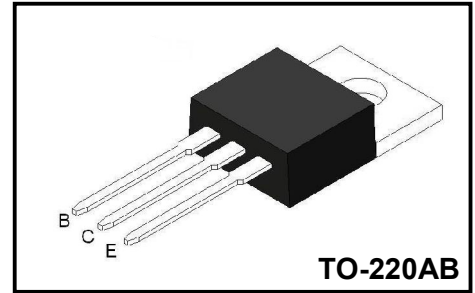


NPN Plastic-Encapsulate Transistors

Low Frequency Power Amplifier
 †Complement to 2SB834



Absolute Maximum Rating (Ta=25°C)

Parameter		Symbol	Value	Unit
Collector-Base Voltage		BV_{CBO}	60	V
Collector-Emitter Voltage		BV_{CEO}	60	V
Emitter-Base Voltage		BV_{EBO}	7	V
Collector Current		I_C	3	A
Base Current		I_B	0.3	A
Collector Power Dissipation	Ta=25°C	P_C	2.0	W
	Tc=25°C		30	
Junction Temperature		T_j	150	°C
Storage Temperature		T_{stg}	-55~150	°C

Electrical Characteristics (Ta=25°C)

Parameter	Symbol	Conditions	Value			Unit
			Min	Typ	Max	
Collector-base breakdown voltage	BV_{CBO}	$I_C = 0.5mA, I_E = 0$	60			V
Collector-emitter breakdown voltage	BV_{CEO}	$I_C = 10mA, I_B = 0$	60			V
Emitter-base breakdown voltage	BV_{EBO}	$I_E = 0.5mA, I_C = 0$	7			V
Collector cut-off current	I_{CBO}	$V_{CB} = 60V, I_E = 0$			100	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = 7V, I_C = 0$			100	μA
DC current gain	$h_{FE(1)}$	$V_{CE} = 5V, I_C = 0.5A$	60		300	
	$h_{FE(2)}$	$V_{CE} = 5V, I_C = 3A$	20			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 3A, I_B = 0.3A$			1.0	V
Base-emitter on voltage	$V_{BE(on)}$	$V_{CE} = 5V, I_C = 0.5A$			1.0	V
Current Gain Bandwidth Product	f_T	$V_{CE} = 5V, I_C = 0.5A$	3			MHz
Collector output capacitance	C_{ob}	$V_{BE} = 10V, f = 1MHz$		35		pF

h_{FE} (1) Classification

Classification	O	Y	G
Range	60~120	100~200	150~300

Typical Characteristics

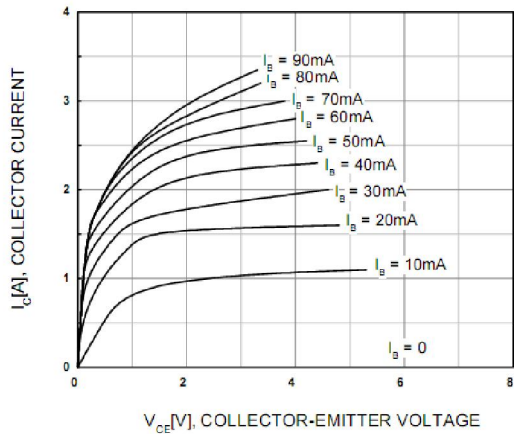


Figure 1. Static Characteristic

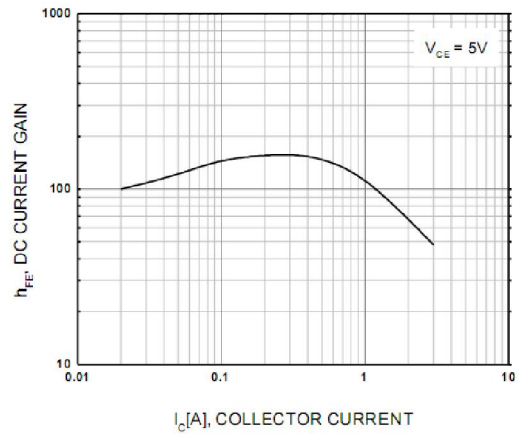


Figure 2. DC current Gain

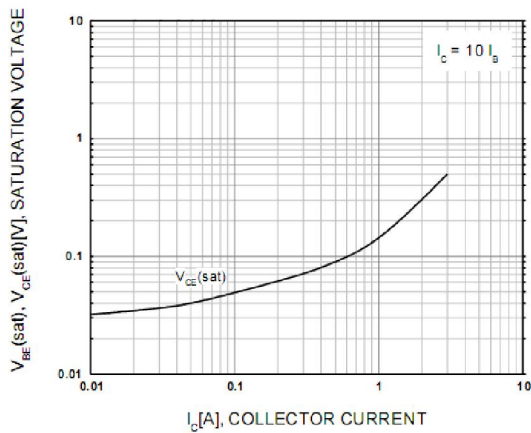


Figure 3. Collector-Emitter Saturation Voltage

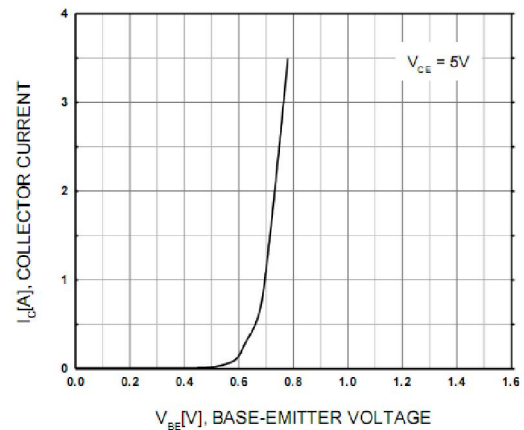


Figure 4. Base-Emitter On Voltage

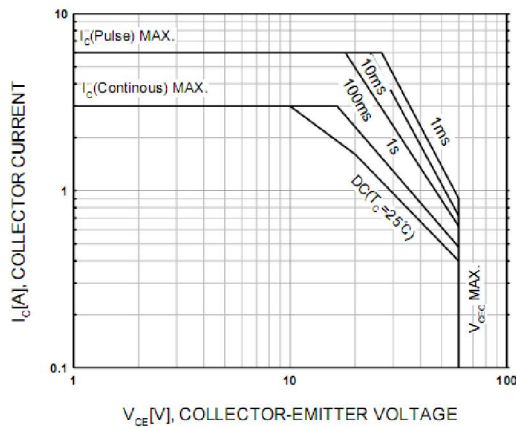


Figure 5. Safe Operating Area

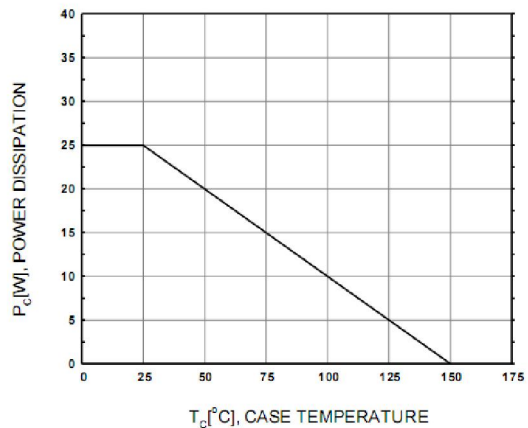
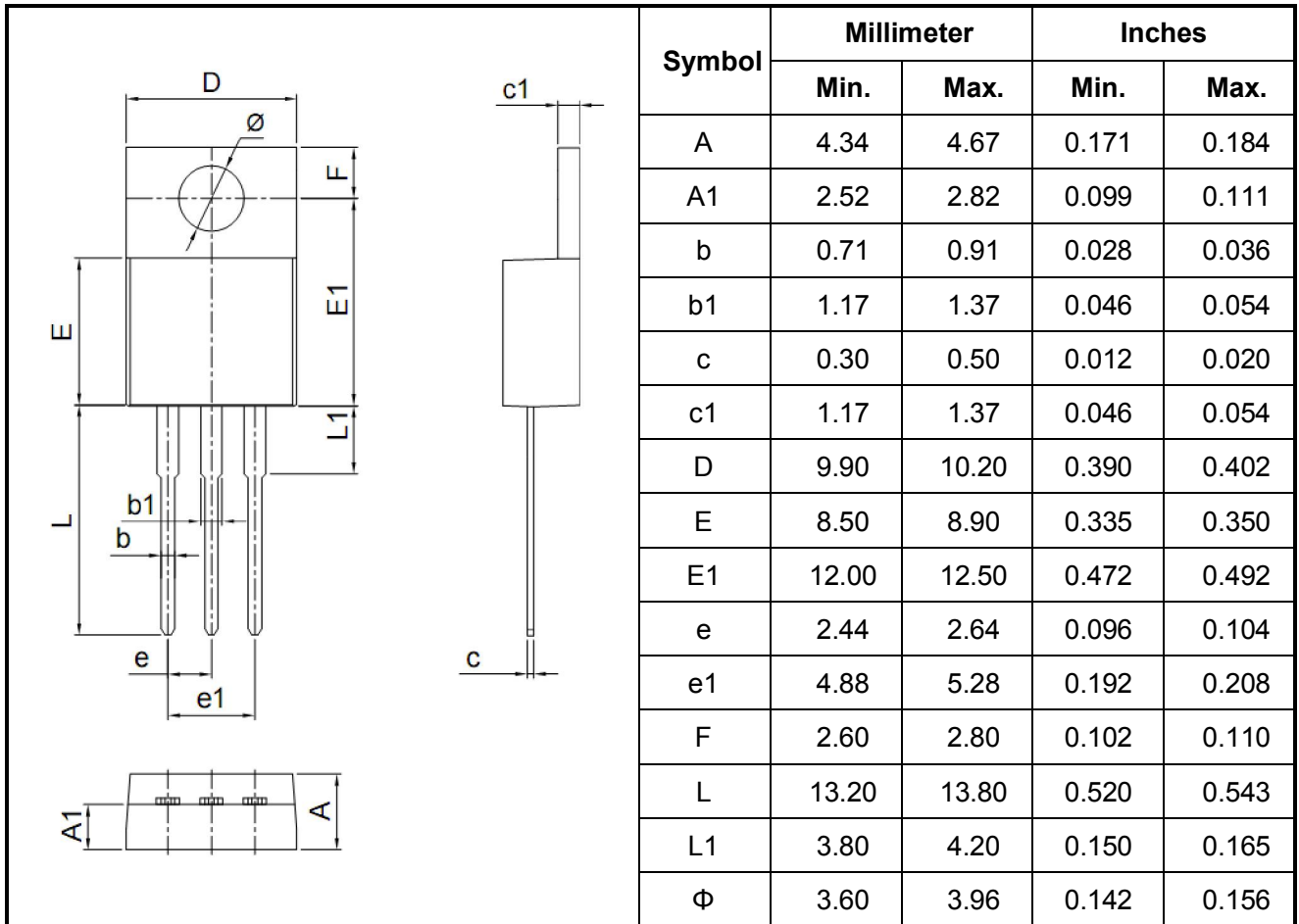


Figure 6. Power Derating

Package Dimensions

TO-220AB



Summary of Packing Options

Package	Packing Description	Packing Quantity	Industry Standard
TO-220AB	Tube	50/1000/5000	EIA-481-1