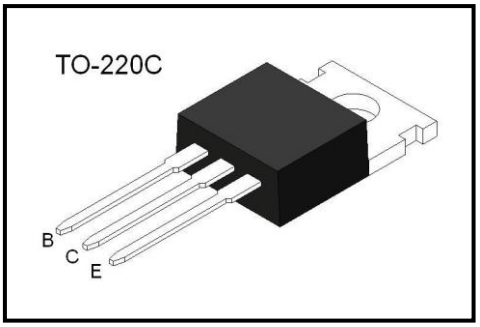
2SB834 PNP TO-220 Plastic-Encapsulate Transistors



Applications

• Low Frequency Power Amplifier

Features

• High DC Current Gain: h_{FE} = 300(Max.) (V_{CE}=-5V,I_C=-0.5A)
• Low Saturation Voltage: $V_{CE(sat)}$ = -1.0V(Max) (I_C=-3A,I_B=-0.3A)
• High Power Dissipation: P_C = 30W (Ta=25℃)
• Complement to 2SD880

Absolute Maximum Rating (Ta=25℃)

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℃	P_C	1.5	W
	Tc=25℃		30	
Junction temperature		T_j	150	℃
Storage temperature		T_{stg}	-55～150	℃

Electrical Characteristics (Ta=25℃)

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
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		9		MHz
Output Capacitance	C_{ob}	V_{CB}=-10V, I_E=0		150		pF

h_{FE} (1) Classification

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

Typical Characteristics

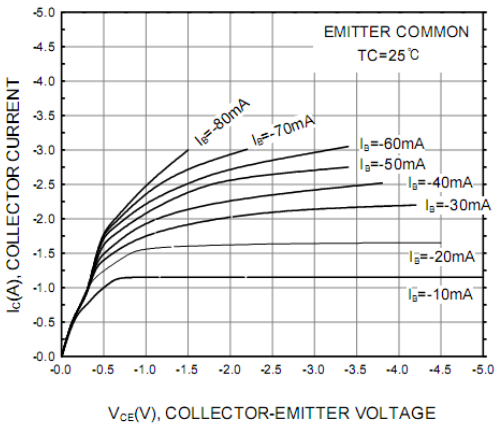


Figure 1. Static Characteristic

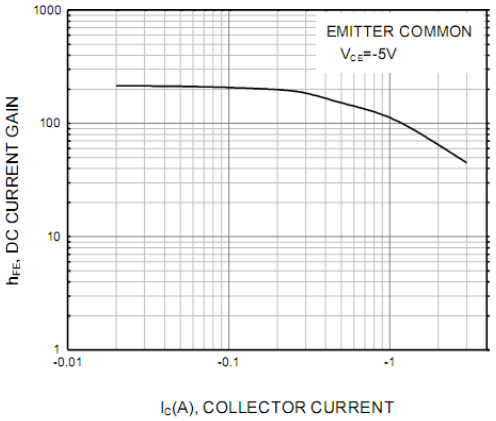


Figure 2. DC current Gain

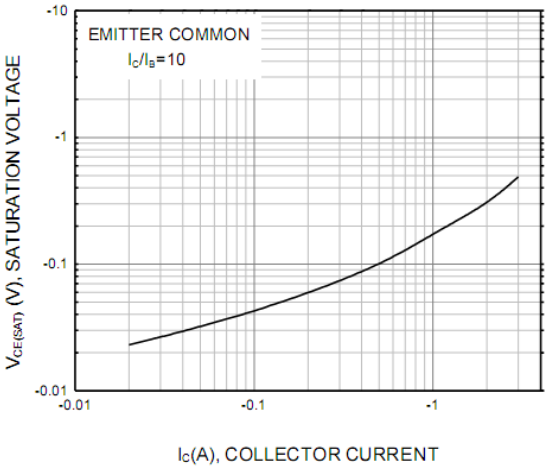


Figure 3. Collector-Emitter Saturation Voltage

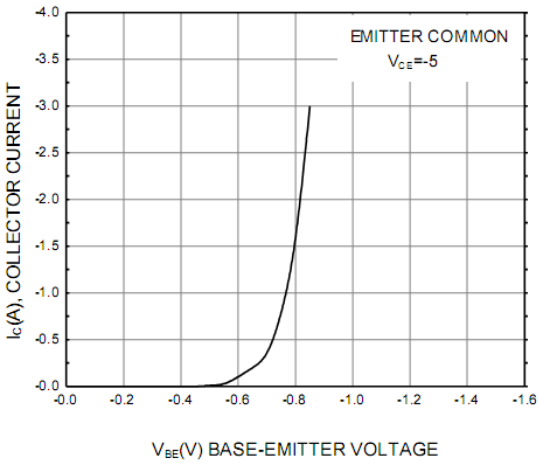


Figure 4. Base-Emitter On Voltage

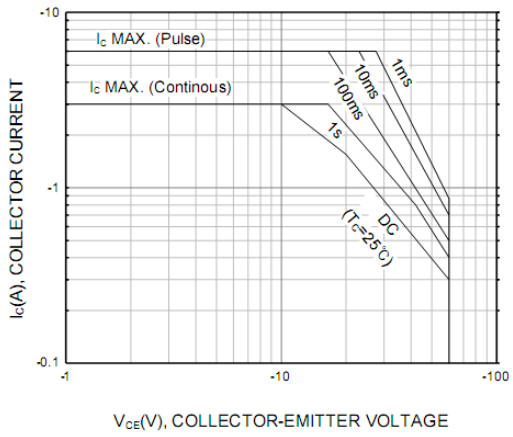


Figure 5. Safe Operating Area

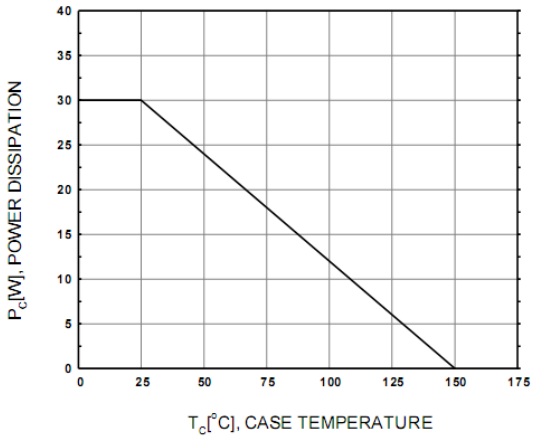
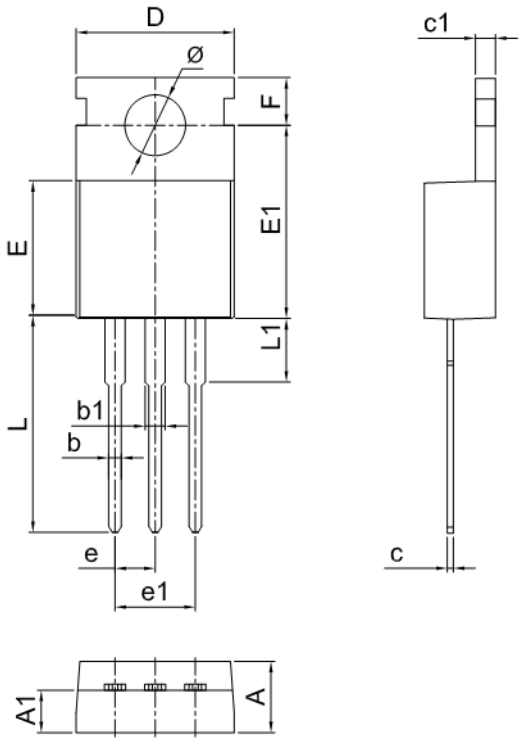


Figure 6. Power Derating

Package Dimensions



Dim	Millimeter		Inches	
	Min.	Max.	Min.	Max.
A	4.34	4.67	0.171	0.184
A1	2.52	2.82	0.099	0.111
b	0.71	0.91	0.028	0.036
b1	1.17	1.37	0.046	0.054
c	0.30	0.50	0.012	0.020
c1	1.17	1.37	0.046	0.054
D	9.90	10.20	0.390	0.402
E	8.50	8.90	0.335	0.350
E1	12.00	12.50	0.472	0.492
e	2.44	2.64	0.096	0.104
e1	4.88	5.28	0.192	0.208
F	2.60	2.80	0.102	0.110
L	13.20	13.80	0.520	0.543
L1	3.80	4.20	0.150	0.165
Φ	3.60	3.96	0.142	0.156