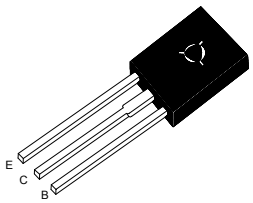
2SB772T-HAF

PNP Silicon Epitaxial Power Transistor

These devices are intended for use in audio frequency power amplifier and low speed switching applications



TO-126 Plastic Package

Features

• Halogen and Antimony Free(HAF), RoHS compliant

Absolute Maximum Ratings (T_a = 25 °C)

Parameter	Symbol	Value	Unit
Collector Base Voltage	$-V_{CBO}$	40	V
Collector Emitter Voltage	$-V_{CEO}$	30	V
Emitter Base Voltage	$-V_{EBO}$	5	V
Collector Current - DC Collector Current - Pulse [1]	$-I_C$ $-I_{CP}$	3 7	A A
Base Current - DC	$-I_B$	0.6	A
Total Power Dissipation	P_{tot}	10 1	W
Operating and Storage Junction Temperature Range	T_j, T_{stg}	- 65 to + 150	°C

[1] PW = 10 ms, Duty Cycle ≤ 50 %

Characteristics at T_a = 25 °C

Parameter			Symbol	Min.	Typ.	Max.	Unit
DC Current Gain							
at $-V_{CE}$ = 2 V, $-I_C$ = 20 mA			h_{FE}	30	-	-	-
at $-V_{CE}$ = 2 V, $-I_C$ = 1 A	Current Gain Group	R	h_{FE}	60	-	120	-
		Q	h_{FE}	100	-	200	-
		P	h_{FE}	160	-	320	-
		E	h_{FE}	200	-	400	-
Collector Base Cutoff Current at $-V_{CB}$ = 30 V			$-I_{CBO}$	-	-	1	µA
Emitter Base Cutoff Current at $-V_{EB}$ = 3 V			$-I_{EBO}$	-	-	1	µA
Collector Base Breakdown Voltage at $-I_C$ = 1 mA			$-V_{(BR)CBO}$	40	-	-	V
Collector Emitter Breakdown Voltage at $-I_C$ = 1 mA			$-V_{(BR)CEO}$	30	-	-	V
Emitter Base Breakdown Voltage at $-I_E$ = 1 mA			$-V_{(BR)EBO}$	5	-	-	V
Collector Emitter Saturation Voltage at $-I_C$ = 2 A, $-I_B$ = 200 mA			$-V_{CE(sat)}$	-	-	0.5	V
Base Emitter Saturation Voltage at $-I_C$ = 2 A, $-I_B$ = 200 mA			$-V_{BE(sat)}$	-	-	2	V
Emitter Output Capacitance at $-V_{CB}$ = 10 V, f = 1 MHz			C_{ob}	-	55	-	pF
Current Gain Bandwidth Product at $-I_C$ = 100 mA, $-V_{CE}$ = 5 V			f_T	-	80	-	MHz

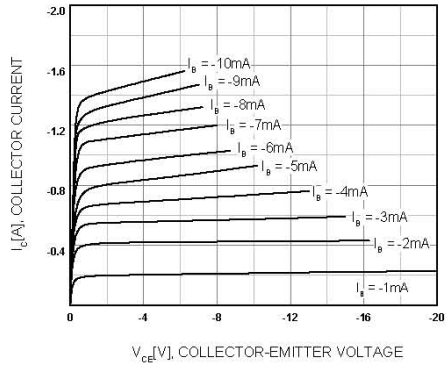


Figure 1. Static Characteristic

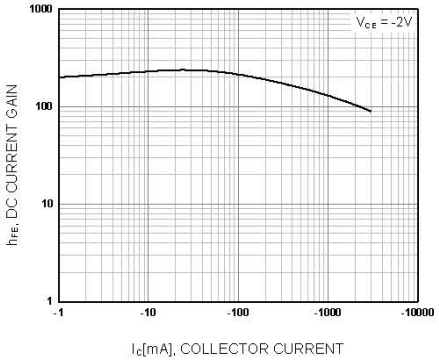


Figure 2. DC current Gain

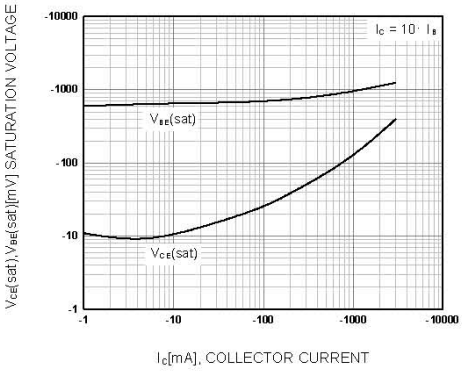


Figure 3. Base-Emitter Saturation Voltage Collector-Emitter Saturation Voltage

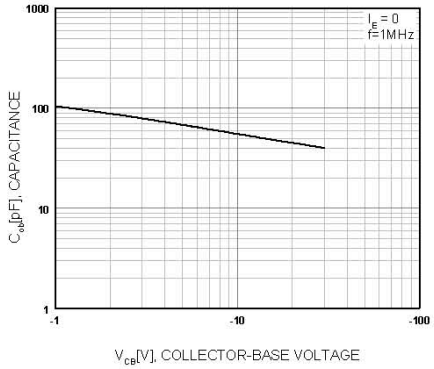


Figure 4. Collector Output Capacitance

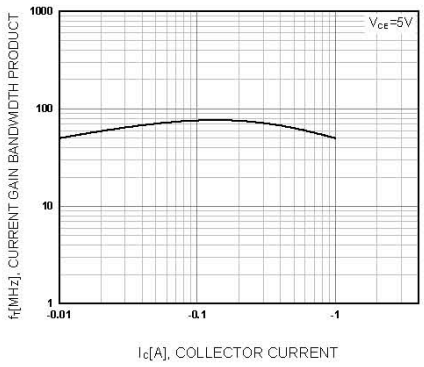


Figure 5. Current Gain Bandwidth Product

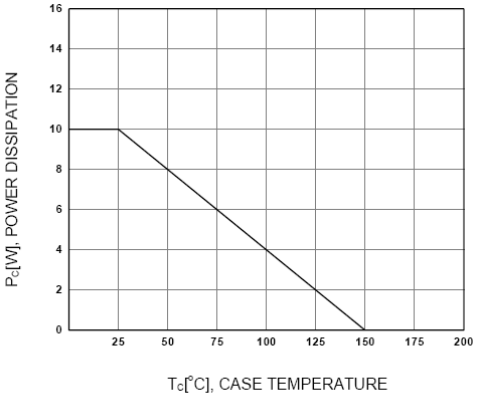


Figure 6 Power Derating