PNP Silicon Epitaxial Planar Transistor

1. Emitter 2. Collector 3. Base
TO-92 Plastic Package

Applications

- General purpose switching and amplification
- Power application such as audio output stages

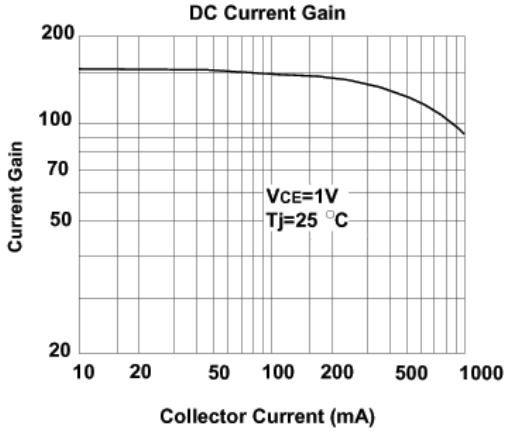
Absolute Maximum Ratings (T_a = 25 °C)

Parameter	Symbol	Value	Unit
Collector Base Voltage	$-V_{CBO}$	32	V
Collector Emitter Voltage	$-V_{CEO}$	20	V
Emitter Base Voltage	$-V_{EBO}$	5	V
Collector Current (DC)	$-I_C$	1	A
Peak Collector Current	$-I_{CM}$	2	A
Total Power Dissipation	P_{tot}	625	mW
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_S	- 55 to + 150	°C

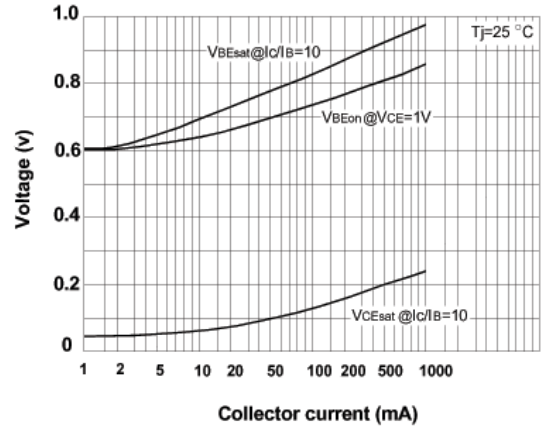
Characteristics at T_a = 25 °C

Parameter	Symbol	Min.	Max.	Unit
DC Current Gain at $-V_{CE}$ = 10 V, $-I_C$ = 5 mA at $-V_{CE}$ = 1 V, $-I_C$ = 500 mA at $-V_{CE}$ = 1 V, $-I_C$ = 1 A	 h_{FE} h_{FE} h_{FE}	 50 85 60	 - 375 -	 - - -
Collector Base Cutoff Current at $-V_{CB}$ = 25 V	$-I_{CBO}$	-	100	nA
Emitter Base Cutoff Current at $-V_{EB}$ = 5 V	$-I_{EBO}$	-	100	nA
Collector Base Breakdown Voltage at $-I_C$ = 100 µA	$-V_{(BR)CBO}$	32	-	V
Collector Emitter Breakdown Voltage at $-I_C$ = 10 mA	$-V_{(BR)CEO}$	20	-	V
Emitter Base Breakdown Voltage at $-I_E$ = 100 µA	$-V_{(BR)EBO}$	5	-	V
Collector Emitter Saturation Voltage at $-I_C$ = 1 A, $-I_B$ = 100 mA	$-V_{CE(sat)}$	-	0.5	V
Base Emitter On Voltage at $-V_{CE}$ = 1 V, $-I_C$ = 1 A	$-V_{BE(on)}$	-	1	V
Gain Bandwidth Product at $-V_{CE}$ = 5 V, $-I_C$ = 10 mA, f = 20 MHz	f_T	40	-	MHz

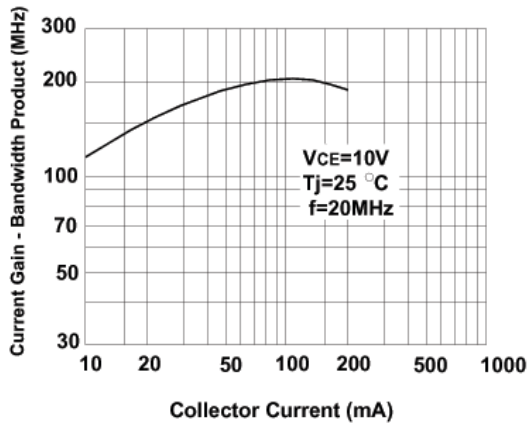
DC Current Gain



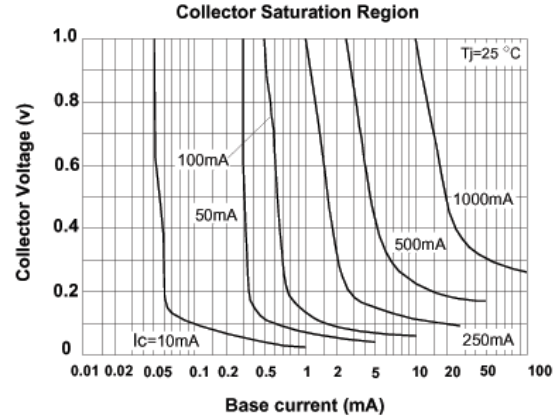
On Voltages



Current Gain - Bandwidth Product



Collector Saturation Region



Capacitance