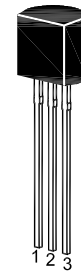


8050

NPN Silicon Epitaxial Planar Transistor

for switching and amplifier applications. Especially suitable for AF-driver stages and low power output stages.

The transistor is subdivided into four groups, B, C, D and E, according to its DC current gain.



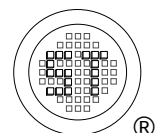
1. Emitter 2. Base 3. Collector
TO-92 Plastic Package

Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

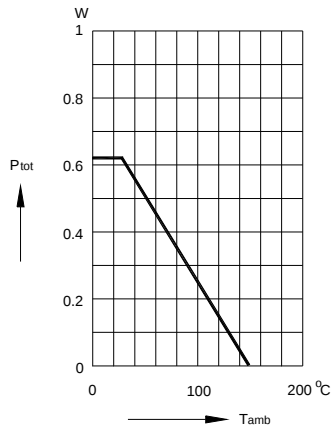
Parameter	Symbol	Value	Unit
Collector Base Voltage	V_{CBO}	40	V
Collector Emitter Voltage	V_{CEO}	25	V
Emitter Base Voltage	V_{EBO}	6	V
Collector Current	I_C	800	mA
Base Current	I_B	100	mA
Power Dissipation	P_{tot}	625	mW
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55 to + 150	$^\circ\text{C}$

Characteristics at $T_a = 25^\circ\text{C}$

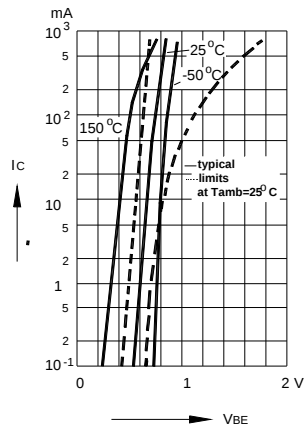
Parameter	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at V _{CE} = 1 V, I _C = 100 mA Current Gain Group B C D E at V _{CE} = 1 V, I _C = 350 mA	h _{FE}	70	-	120	-
	h _{FE}	120	-	200	-
	h _{FE}	160	-	300	-
	h _{FE}	300	-	380	-
	h _{FE}	60	-	-	-
Collector Base Cutoff Current at V _{CB} = 35 V	I _{CBO}	-	-	100	nA
Collector Base Breakdown Voltage at I _C = 10 μA	V _{(BR)CBO}	40	-	-	V
Collector Emitter Breakdown Voltage at I _C = 2 mA	V _{(BR)CEO}	25	-	-	V
Emitter Base Breakdown Voltage at I _E = 100 μA	V _{(BR)EBO}	6	-	-	V
Collector Emitter Saturation Voltage at I _C = 500 mA, I _B = 50 mA	V _{CE(sat)}	-	-	0.5	V
Base Emitter Saturation Voltage at I _C = 500 mA, I _B = 50 mA	V _{BE(sat)}	-	-	1.2	V
Gain Bandwidth Product at V _{CE} = 5 V, I _C = 10 mA, f = 50 MHz	f _T	-	100	-	MHz
Collector Base Capacitance at V _{CB} = 10 V, f = 1 MHz	C _{ob}	-	12	-	pF



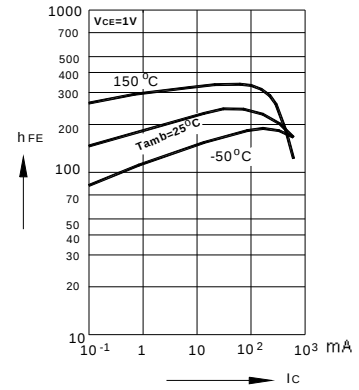
Admissible power dissipation versus ambient temperature
Valid provided that leads are kept at ambient temperature at a distance of 2 mm from case



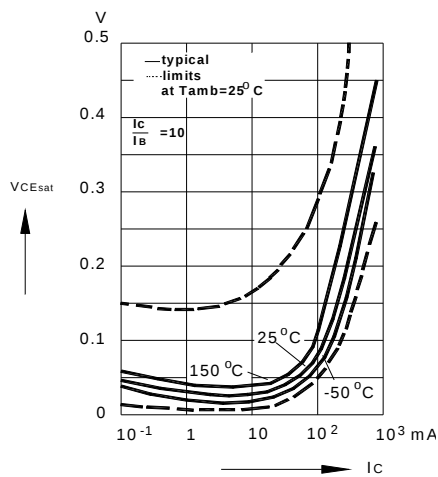
Collector current versus base emitter voltage



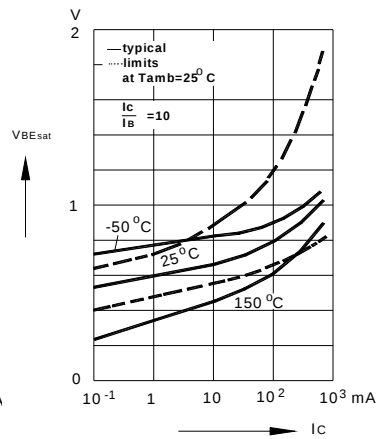
DC current gain versus collector current



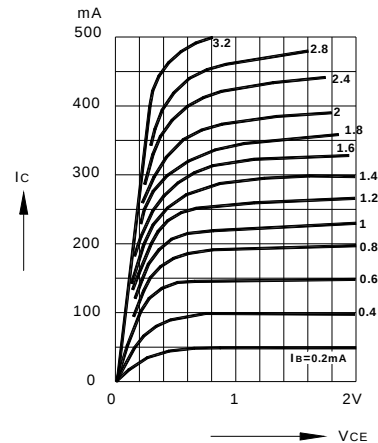
Collector saturation voltage versus collector current



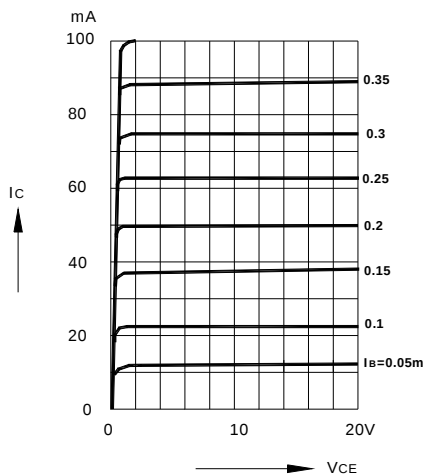
Base saturation voltage versus collector current



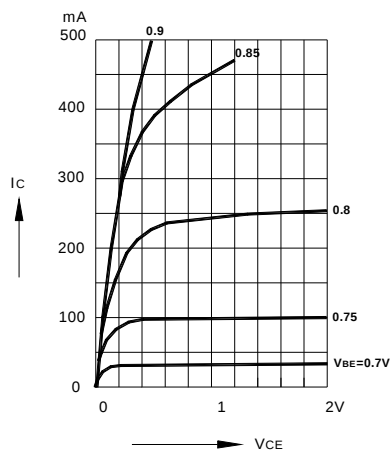
Common emitter collector characteristics



Common emitter collector characteristics



Common emitter collector characteristics



Gain bandwidth product versus collector current

