

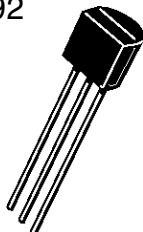


Description

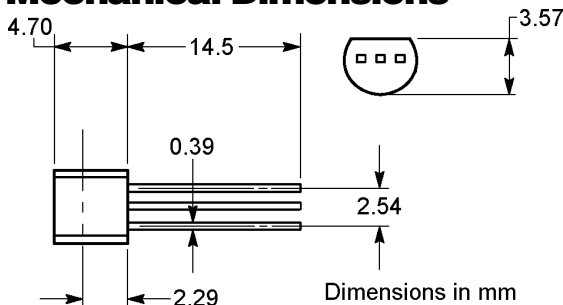
NPN Epitaxial Planar Transistor

FA8050

TO-92



Mechanical Dimensions



Maximum Ratings

Ratings	Symbol	Value	Units
Collector - Emitter Voltage	$V_{CEO}$	25	V
Collector - Base Voltage	$V_{CBO}$	40	V
Emitter - Base Voltage	$V_{EBO}$	6.0	V
Collector Current (Continuous)	$I_C$	1.5	A
Base Current	$I_B$	500	mA
Total Device Dissipation $T_A = 25^\circ\text{C}$	$P_D$	1.0	W
Junction and Storage Temperature	$T_J, T_{STG}$	-55 to 150	$^\circ\text{C}$

Electrical Characteristics @ 25°C

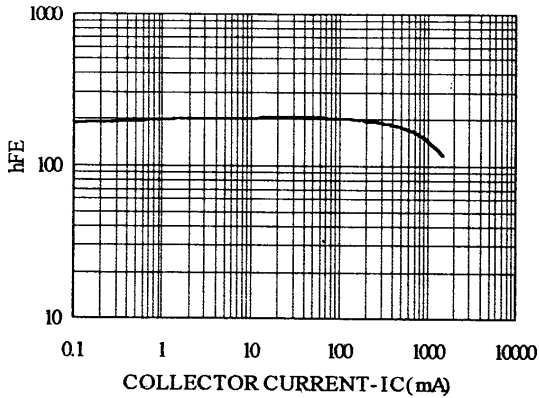
Characteristic	Symbol	Min	Max	Unit
Collector - Emitter Breakdown Voltage ( $I_C = 2.0\text{mA}$ )	$V_{BR(CEO)}$	25	---	V
Collector - Base Breakdown Voltage ( $I_C = 100\mu\text{A}$ )	$V_{BR(CBO)}$	40	---	V
Emitter - Base Breakdown Voltage ( $I_E = 100\mu\text{A}$ )	$V_{BR(EBO)}$	6.0	---	V
Collector Cutoff Current ( $V_{CB} = 35\text{V}$ )	$I_{CBO}$	---	0.1	$\mu\text{A}$
Emitter Cutoff Current ( $V_{EB} = 6.0\text{V}$ )	$I_{EBO}$	---	0.1	$\mu\text{A}$
DC Current Gain ( $I_C = 5.0\text{mA}, V_{CE} = 1.0\text{V}$ ) ( $I_C = 100\text{mA}, V_{CE} = 1.0\text{V}$ ) ( $I_C = 800\text{mA}, V_{CE} = 1.0\text{V}$ )	$H_{FE}$	45 85 40	---	---
Collector - Emitter Saturation Voltage ( $I_C = 0.8\text{A}, I_B = 80\text{mA}$ )	$V_{CE(sat)}$	---	0.5	V
Base - Emitter Saturation Voltage ( $I_C = 0.8\text{A}, I_B = 80\text{mA}$ )	$V_{BE(sat)}$	---	1.2	V
Base - Emitter On Voltage ( $V_{CE} = 1.0\text{V}, I_C = 10\text{mA}$ )	$V_{BE(ON)}$	---	1.0	V
Current - Gain - Bandwidth Product ( $I_C = 50\text{mA}, V_{CE} = 10\text{V}$ )	$f_T$	100	---	MHz

Classification of  $h_{FE2}$

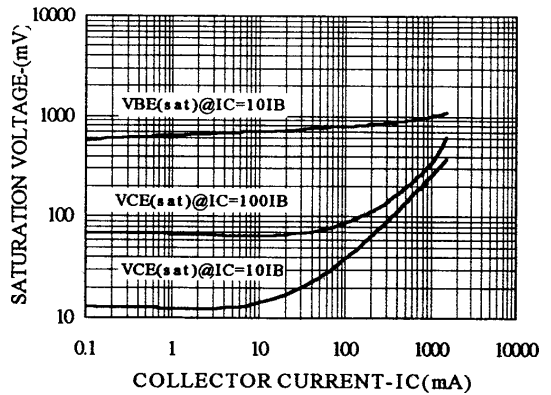
Rank	B	C	D	E
Range	85-160	120-200	160-300	250-500

# FA8050 NPN Epitaxial Planar Transistor

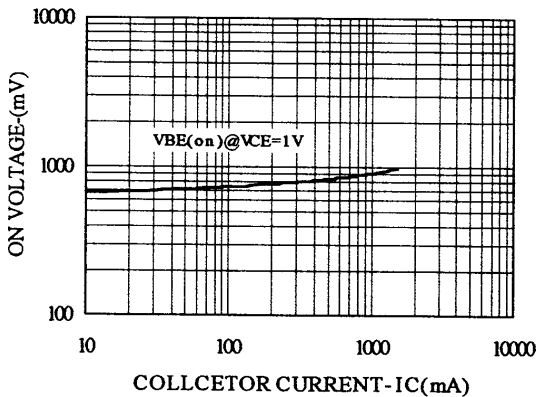
CURRENT GAIN VS. COLLECTOR CURRENT



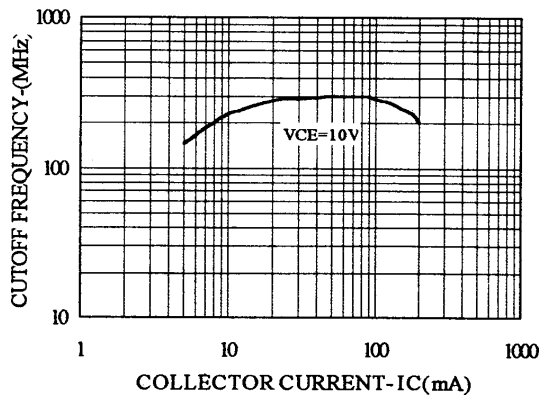
SATURATION VOLTAGE VS. COLLECTOR CURRENT



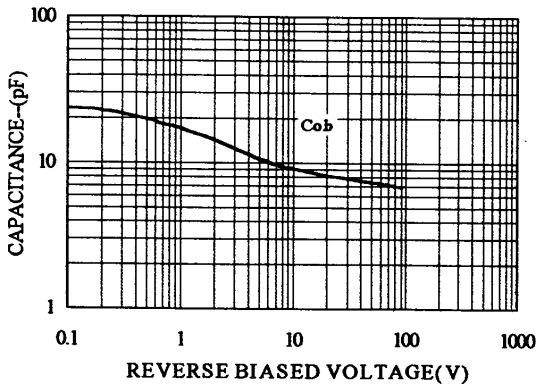
ON VOLTAGE VS. COLLECTOR CURRENT



CUTOFF FREQUENCY VS. COLLECTOR CURRENT



CAPACITANCE VS. REVERSE-BIASED VOLTAGE



SAFE OPERATING AREA

