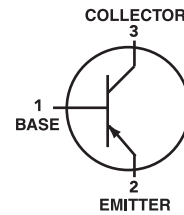


PNP General Purpose Transistors



MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Collector-Emitter Voltage	V_{CEO}	-45	Vdc
Collector-Base Voltage	V_{CBO}	-50	Vdc
Emitter-Base Voltage	V_{EBO}	-5	Vdc
Collector Current-Continuous	I_C	-100	mAdc

THERMAL CHARACTERISTICS

Characteristics	Symbol	Max	Unit
Total Device Dissipation FR-5 Board (1) TA=25°C Derate above 25°C	P_D	200	mW
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	625	mW/°C
Junction and Storage, Temperature	T_J, T_{stg}	-55 to +150	°C

DEVICE MARKING

S9015=M6

ELECTRICAL CHARACTERISTICS

Characteristics	Symbol	Min	Max	Unit
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OFF CHARACTERISTICS

Collector-Emitter Breakdown Voltage ($I_C = -0.1 \text{ mAdc}, I_B = 0$)	$V_{(BR)CEO}$	-45	-	Vdc
Collector-Base Breakdown Voltage ($I_C = -100 \mu\text{Adc}, I_E = 0$)	$V_{(BR)CBO}$	-40	-	Vdc
Emitter-Base Breakdown Voltage ($I_E = -100 \mu\text{Adc}, I_C = 0$)	$V_{(BR)EBO}$	-5.0	-	Vdc
Collector Cutoff Current ($V_{CE} = -45 \text{ Vdc}, I_E = 0$)	I_{CEO}	-	-0.1	μAdc
Collector Cutoff Current ($V_{CB} = -50 \text{ Vdc}, I_E = 0$)	I_{CBO}	-	-0.1	μAdc
Emitter Cutoff Current ($V_{EB} = -5.0 \text{ Vdc}, I_C = 0$)	I_{EBO}	-	-0.1	μAdc

1.FR-5=1.0 x 0.75 x 0.062 in

S9015**QUNHAN TECH****ELECTRICAL CHARACTERISTICS** ($T_A=25^{\circ}\text{C}$ unless otherwise noted) (Continued)

Characteristics	Symbol	Min	Max	Unit
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ON CHARACTERISTICS

DC Current Gain ($I_C=1.0\text{ mA dc}$, $V_{CE}=5.0\text{ V dc}$)	h_{FE}	200	1000	-
Collector-Emitter Saturation Voltage ($I_C=100\text{ mA dc}$, $I_B=10\text{ mA dc}$)	$V_{CE(sat)}$	-	-0.3	Vdc
Base-Emitter Saturation Voltage ($I_C=100\text{ mA dc}$, $I_B=10\text{ mA dc}$)	$V_{BE(sat)}$	-	-1.0	Vdc
Current-Gain-Bandwidth Product ($I_C=10\text{ mA dc}$, $V_{CE}=5\text{ V dc}$, $f=30\text{ MHz}$)	f_T	150	-	MHz

CLASSIFICATION OF h_{FE}

Rank	L	H
Range	120-450	450-1000

S9015

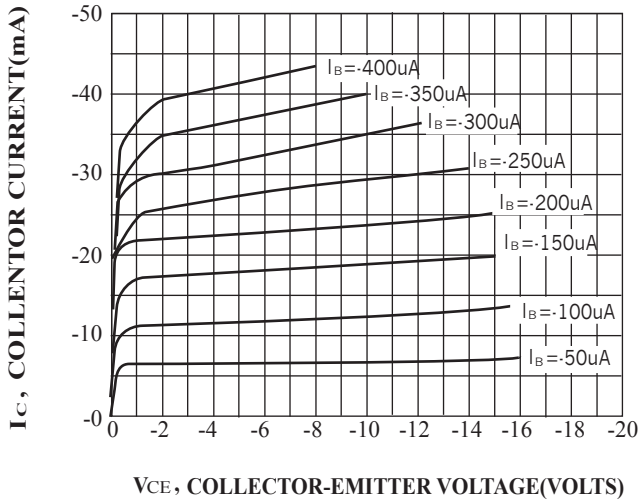


Figure1. Static Characteristic

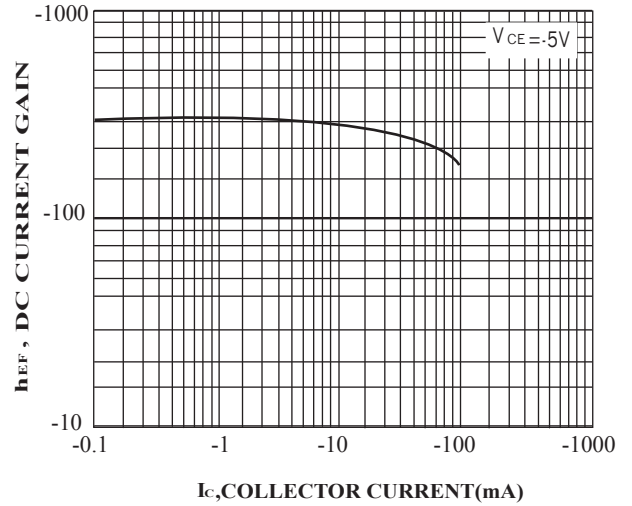


Figure2. DC current Gain

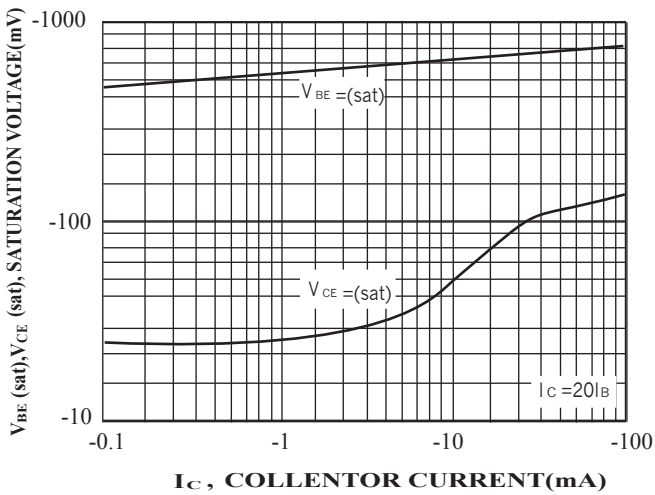


Figure3. Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

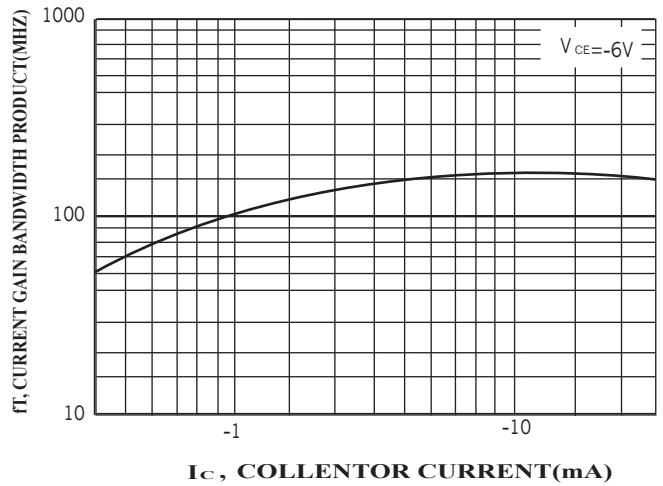


Figure4. Current Gain Bandwidth Product