

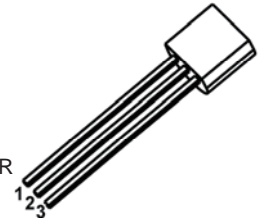
FTC1008 TRANSISTOR (NPN)

FEATURES

- General Purpose Switching and Amplification

TO – 92

1. EMITTER
2. BASE
3. COLLECTOR



MAXIMUM RATINGS (T_a=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V _{CBO}	Collector-Base Voltage	80	V
V _{CEO}	Collector-Emitter Voltage	60	V
V _{EBO}	Emitter-Base Voltage	8	V
I _C	Collector Current	700	mA
P _C	Collector Power Dissipation	800	mW
R _{θJA}	Thermal Resistance From Junction To Ambient	156	°C/W
T _j	Junction Temperature	150	°C
T _{stg}	Storage Temperature	-55~+150	°C

ELECTRICAL CHARACTERISTICS (T_a=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V _{(BR)CBO}	I _C = 0.1mA, I _E =0	80			V
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C =10mA, I _B =0	60			V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E =0.01mA, I _C =0	8			V
Collector cut-off current	I _{CBO}	V _{CB} =60V, I _E =0			0.1	μA
Emitter cut-off current	I _{EBO}	V _{EB} =5V, I _C =0			0.1	μA
DC current gain	h _{FE}	V _{CE} =2V, I _C =50mA	40		400	
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =500mA, I _B =50mA			0.4	V
Base-emitter saturation voltage	V _{BE (sat)}	I _C =500mA, I _B =50mA			1.1	V
Collector output capacitance	C _{ob}	V _{CB} =10V, I _C =0, f=1MHz		8		pF
Transition frequency	f _T	V _{CE} =10V, I _C = 50mA	30			MHz

CLASSIFICATION OF h_{FE}

RANK	R	O	Y	G
RANGE	40-80	70-140	120-240	200-400

● Electrical characteristic curves

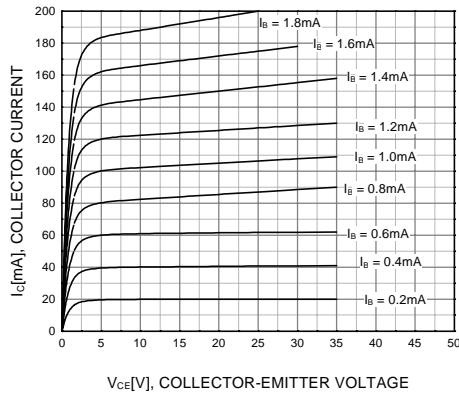


Figure 1. Static Characteristic

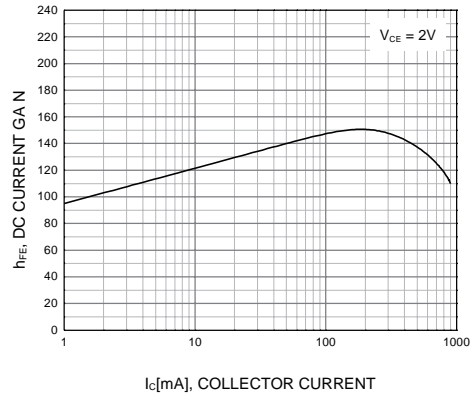
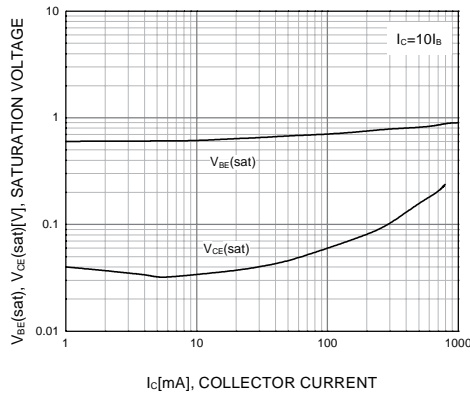


Figure 2. DC current Gain



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

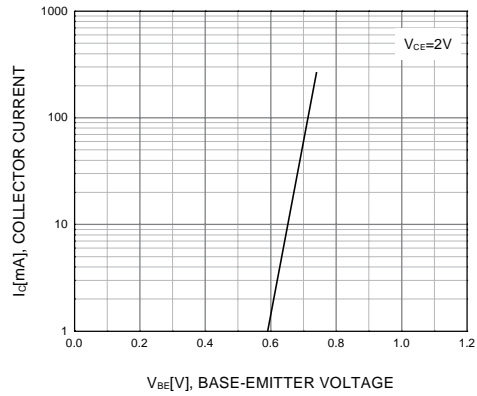


Figure 4. Base-Emitter On Voltage

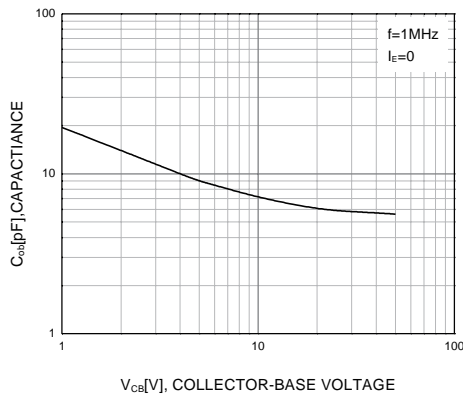


Figure 5. Collector Output Capacitance