

SOT-223 Plastic-Encapsulate Transistors

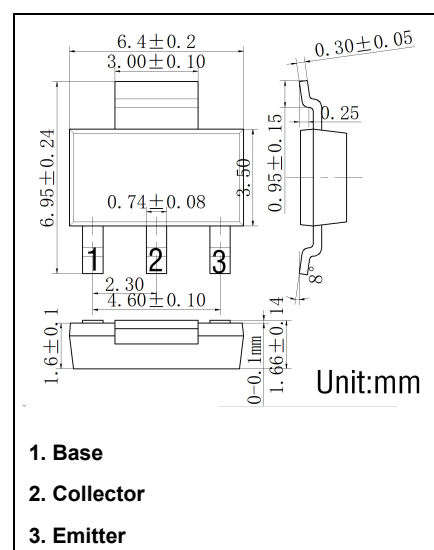
LJ83003D NPN Transistors

Applications

- Power Switching applications

Maximum Ratings (T_a=25°C unless otherwise noted)

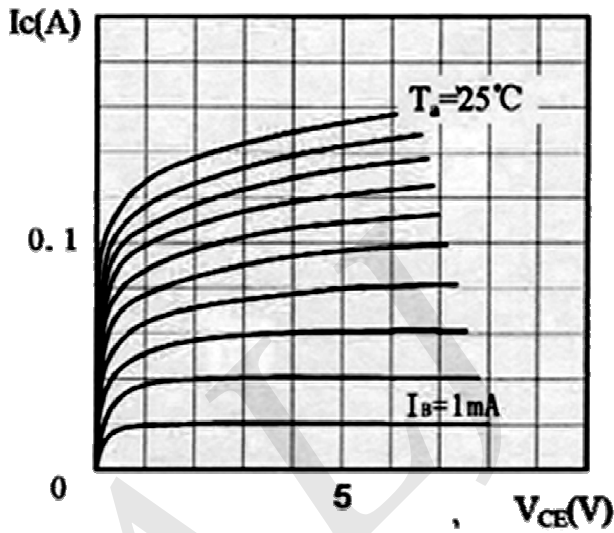
Symbol	Parameter	Value	Unit
V _{CB0}	Collector Base Voltage	700	V
V _{CEO}	Collector Emitter Voltage	400	V
V _{EBO}	Emitter Base Voltage	9	V
I _c	Collector Current	0.25	A
P _c	Collector Power Dissipation	1.00	W
T _j	Junction Temperature	150	°C
T _{stg}	Storage Temperature	-55 ~ 150	°C



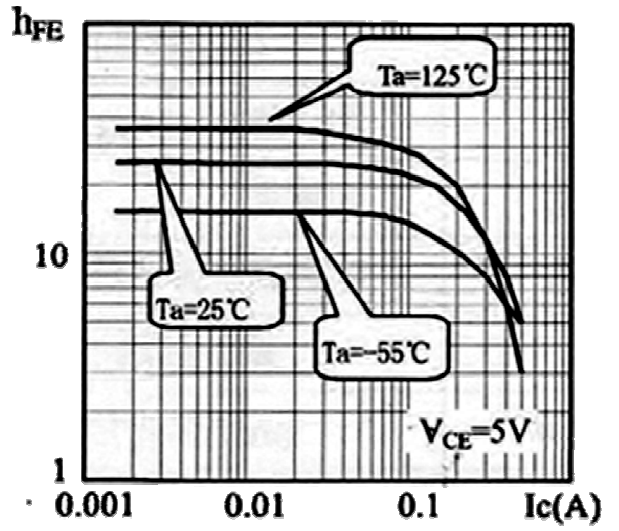
Electrical Characteristics (T_a=25°C unless otherwise specified)

Symbol	Parameter	Test Conditions	Min	Typ	Max	Unit
V _{(BR)CBO}	Collector-base breakdown voltage	I _c = 100μA, I _E = 0	700			V
V _{(BR)CEO}	Collector-emitter breakdown voltage	I _c = 1mA, I _B = 0	400			V
V _{(BR)EBO}	Emitter-base breakdown voltage	I _E = 100μA, I _c = 0	9			V
I _{cBO}	Collector cut-off current	V _{CB} = 700V, I _E = 0			10	μA
I _{CEO}	Collector cut-off current	V _{CE} = 400V, I _B = 0			10	μA
I _{EBO}	Emitter cut-off current	V _{EB} = 9V, I _c = 0			10	μA
h _{FE(1)}	DC current gain	V _{CE} = 5V, I _c = 50mA	10		40	
h _{FE(2)}		V _{CE} = 5V, I _c = 1mA	10			
V _{CE(sat)}	Collector-emitter saturation voltage	I _c = 100mA, I _B = 20mA			0.6	V
V _{BE(sat)}	Base-emitter saturation voltage	I _c = 100mA, I _B = 20mA			1.5	V
t _r	Rise time	UI9600, I _c = 0.1A			1.0	μs
t _s	Storage time		0.8		3.5	μs

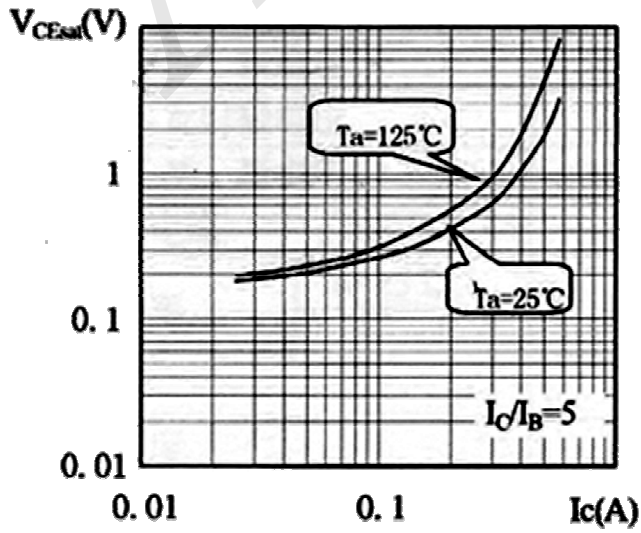
Typical Characteristics



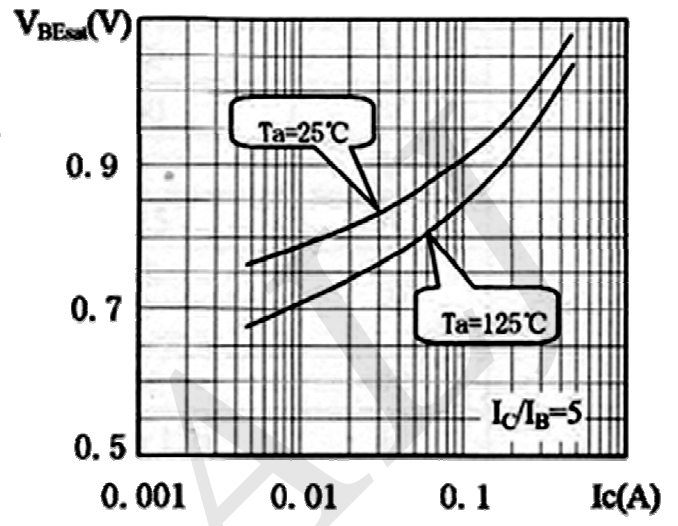
Static Characteristics



$h_{FE} \text{---} I_c$



$V_{CEsat} \text{---} I_c$



$V_{BEsat} \text{---} I_c$