

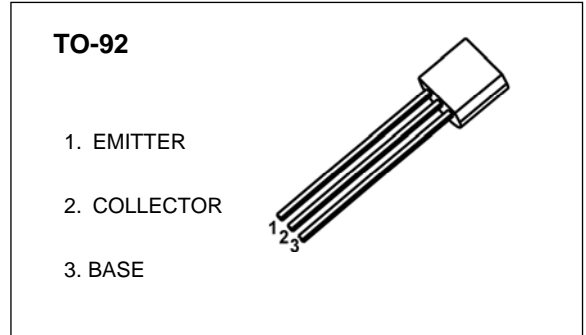


TO-92 Plastic-Encapsulate Transistors

3DD13003B TRANSISTOR(NPN)

FEATURES

- power switching applications



MAXIMUM RATINGS (Ta=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 -Continuous	1.5	A
P _C	Collector Power Dissipation	0.9	W
T _J	Junction Temperature	150	°C
T _{stg}	Storage Temperature	-55~150	°C

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

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V _{(BR)CBO}	I _C = 1mA, I _E =0	700			V
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C = 10mA, I _B =0	400			V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E = 1mA, I _C =0	9			V
Collector cut-off current	I _{CB0}	V _{CB} = 700V, I _E =0			100	µA
Collector cut-off current	I _{CEO}	V _{CE} = 400V, I _B =0			50	µA
Emitter cut-off current	I _{EBO}	V _{EB} = 7V, I _C =0			10	µA
DC current gain	h _{FE}	V _{CE} = 10V, I _C = 0.4 A	20		40	
Collector-emitter saturation voltage	V _{CE(sat)1}	I _C =1.5A, I _B = 0.5A			3	V
	V _{CE(sat)2}	I _C =0.5A, I _B = 0.1A			0.8	V
Base-emitter saturation voltage	V _{BE(sat)}	I _C =0.5A, I _B =0.1A			1	V
Transition Frequency	f _T	V _{CE} =10V, I _C =100mA, f =1MHz	4			MHz
Fall time	t _f	I _C =1A			0.7	µs
Storage time	t _s	I _{B1} =-I _{B2} =0.2A			4	µs

CLASSIFICATION OF h_{FE}

Rank				
Range	20-25	25-30	30-35	35-40

Typical Characteristics

3DD13003B

Static Characteristic

