



TO-251 Plastic-Encapsulate Transistors

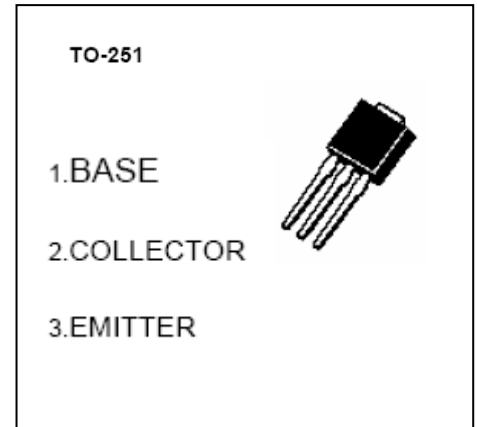
13002 TRANSISTOR(NPN)

FEATURES

- power switching applications

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

Symbol	Parameter	Value	Units
V _{CB0}	Collector-Base Voltage	600	V
V _{CEO}	Collector-Emitter Voltage	400	V
V _{EBO}	Emitter-Base Voltage	9	V
I _C	Collector Current-Continuous	1.0	A
P _C	Collector Power Dissipation	15	W
T _J	Junction Temperature	150	°C
T _{stg}	Storage Temperature	-55-150	°C



ELECTRICAL CHARACTERISTICS(Tamb=25°C unless otherwise specified):

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	V(BR) _{CB0}	I _C =1mA, I _E =0	600			V
Collector-emittre breakdown'voltage	V(BR) _{CEO}	I _C =1mA, 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} =600V, I _E =0			0.5	μA
Collector cut-off current	I _{CEO}	V _{CE} =400V, I _B =0			1.0	μA
Emitter cut-off current	I _{EBO}	V _{EB} =9V, I _C =0			0.1	μA
DC current gain	H _{FE}	V _{CE} =5V, I _C =1mA	8		40	
Collector-emittre saturation voltage	V _{CE(sat)}	I _C =0.5A, I _B =0.1A			0.8	V
Collector-emittre saturation voltage	V _{BE(sat)}	I _C =0.5A, I _B =0.1A			1.5	V
Transition frequency	f _T	V _{CE} =10V, I _C =100mA F=1MHZ	5			MHZ
Storage Time	t _s	I _C =0.25A (UI9600)	2.0		6.0	us
Fall Time	t _f				1.0	

CLASSIFICATION OF Hfe1

Rank							
Range	8-10	10-15	15-20	20-25	25-30	30-35	35-40