

13001 TRANSISTOR(NPN)

FEATURES

power switching applications

MARKING: ALJ01

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

Symbol	Parameter	Value	Units
V _{CBO}	Collector-Base Voltage	600	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	0.8	W
T _j	Junction Temperature	150	°C
T _{stg}	Storage Temperature	-55~150	°C

SOT-23-3L



1. BASE
2. EMITTER
3. COLLECTOR

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 =100μA, I _E =0	600			V
Collector-emitter breakdown voltage	V(BR) _{CEO}	I _C =1mA, I _B =0	400			V
Emitter-base breakdown voltage	V(BR) _{EBO}	I _C =100μA, I _C =0	9			V
Collector cut-off current	I _{CBO}	V _{CB} =600V, I _E =0			10	μA
Collector cut-off current	I _{CEO}	V _{CE} =400V, I _B =0			10	μA
Emitter cut-off current	I _{EBO}	V _{EB} =9V, I _C =0			10	μA
DC current gain	HFE(1)	V _{CE} =5V, I _C =50mA	15		30	
	HFE(2)	V _{CE} =5V, I _C =1mA	10			
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =100mA, I _B =20mA			0.6	V
Collector-emitter saturation voltage	V _{BE(sat)}	I _C =100mA, I _B =20mA			1.5	V
Storage time	t _s	UI9600, I _C =0.1A	0.8		3.5	us
Rise time	t _r				1	us

Classification of hfe₍₁₎

Range	15-20	20-25	25-30

Typical Characteristics

