

TO-251-3L Plastic-Encapsulate Transistors

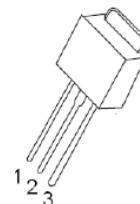
MJD117 TRANSISTOR (PNP)

FEATURES

- High DC Current Gain
- Low Collector-Emitter Saturation Voltage
- Complementary to MJD112

TO-251-3L

1. BASE
2. COLLECTOR
3. EMITTER


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

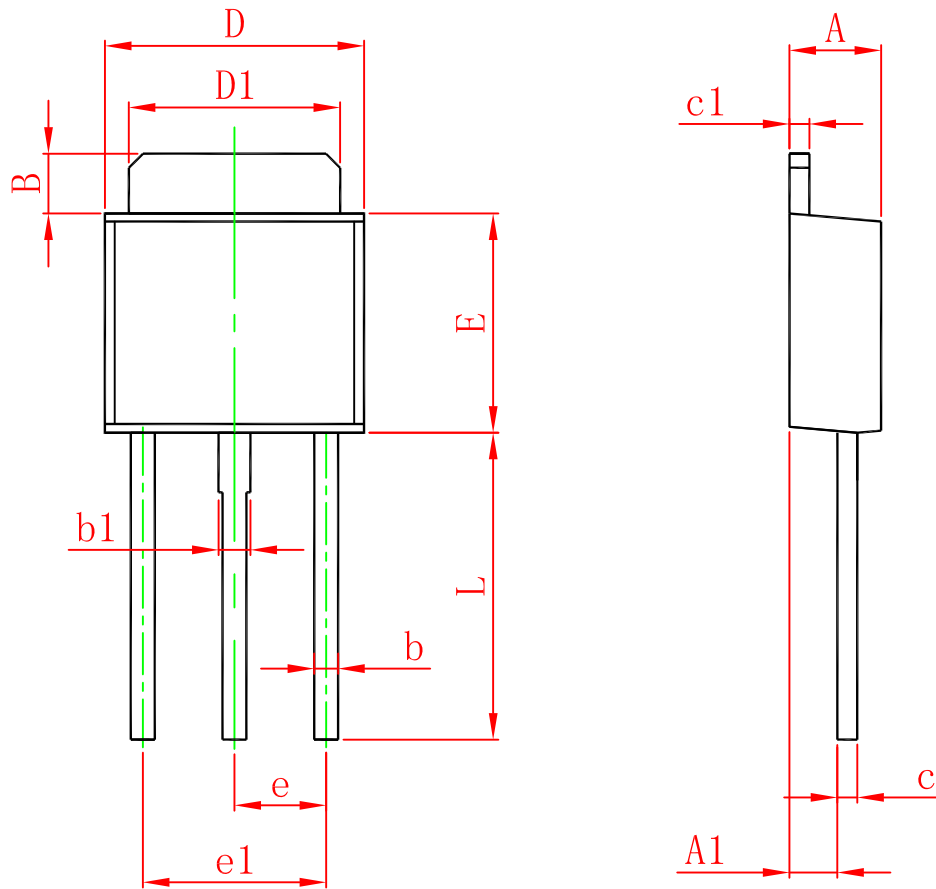
Symbol	Parameter	Value	Unit
V _{CB0}	Collector-Base Voltage	-100	V
V _{CEO}	Collector-Emitter Voltage	-100	V
V _{EBO}	Emitter-Base Voltage	-5	V
I _C	Collector Current	-2	A
P _C	Collector Power Dissipation	1.75	W
R _{θJA}	Thermal Resistance From Junction To Ambient	71	°C/W
T _j	Junction Temperature	150	°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 =-1mA, I _E =0	-100			V
Collector-emitter breakdown voltage	V _{(BR)CEO} *	I _C =-30mA, I _B =0	-100			V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E =-5mA, I _C =0	-5			V
Collector cut-off current	I _{CBO}	V _{CB} =-80V, I _E =0			-10	μA
Collector cut-off current	I _{CEX}	V _{CE} =-80V, V _{BE(off)} =-1.5V			-10	μA
Emitter cut-off current	I _{EBO}	V _{EB} =-5V, I _C =0			-2	mA
DC current gain	h _{FE(1)} *	V _{CE} =-3V, I _C =-0.5A	500			
	h _{FE(2)} *	V _{CE} =-3V, I _C =-2A	1000		12000	
	h _{FE(3)} *	V _{CE} =-3V, I _C =-4A	200			
Collector-emitter saturation voltage	V _{CE(sat)} *	I _C =-2A, I _B =-8mA			-2	V
		I _C =-4A, I _B =-40mA			-3	V
Base-emitter saturation voltage	V _{BE(sat)} *	I _C =-4A, I _B =-40mA			-4	V
Base-emitter voltage	V _{BE} *	V _{CE} =-3V, I _C =-2A			-2.8	V
Collector output capacitance	C _{ob}	V _{CB} =-10V, I _E =0, f=0.1MHz			200	pF
Transition frequency	f _T	V _{CE} =-10V, I _C =-0.75A, f=1MHz	25			MHz

*Pulse test

TO-251-3L Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	2.200	2.400	0.087	0.094
A1	1.050	1.350	0.042	0.054
B	1.350	1.650	0.053	0.065
b	0.500	0.700	0.020	0.028
b1	0.700	0.900	0.028	0.035
c	0.430	0.580	0.017	0.023
c1	0.430	0.580	0.017	0.023
D	6.350	6.650	0.250	0.262
D1	5.200	5.400	0.205	0.213
E	5.400	5.700	0.213	0.224
e	2.300 TYP.		0.091 TYP.	
e1	4.500	4.700	0.177	0.185
L	7.500	7.900	0.295	0.311