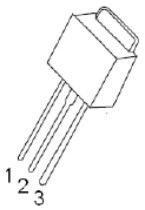
TO-251-3L Plastic-Encapsulate Transistors

MJD117 TRANSISTOR (PNP)

TO-251-3L

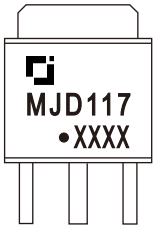


1. BASE
2. COLLECTOR
3. EMITTER

FEATURES

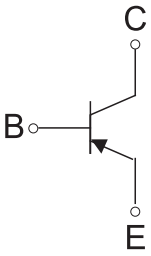
- High DC Current Gain
- Low Collector-Emitter Saturation Voltage
- Complementary to MJD117

MARKING



MJD117=Device code
Solid dot=Green moldinn compound device, if none,the normal device
XXXX=Code

Equivalent Circuit



MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

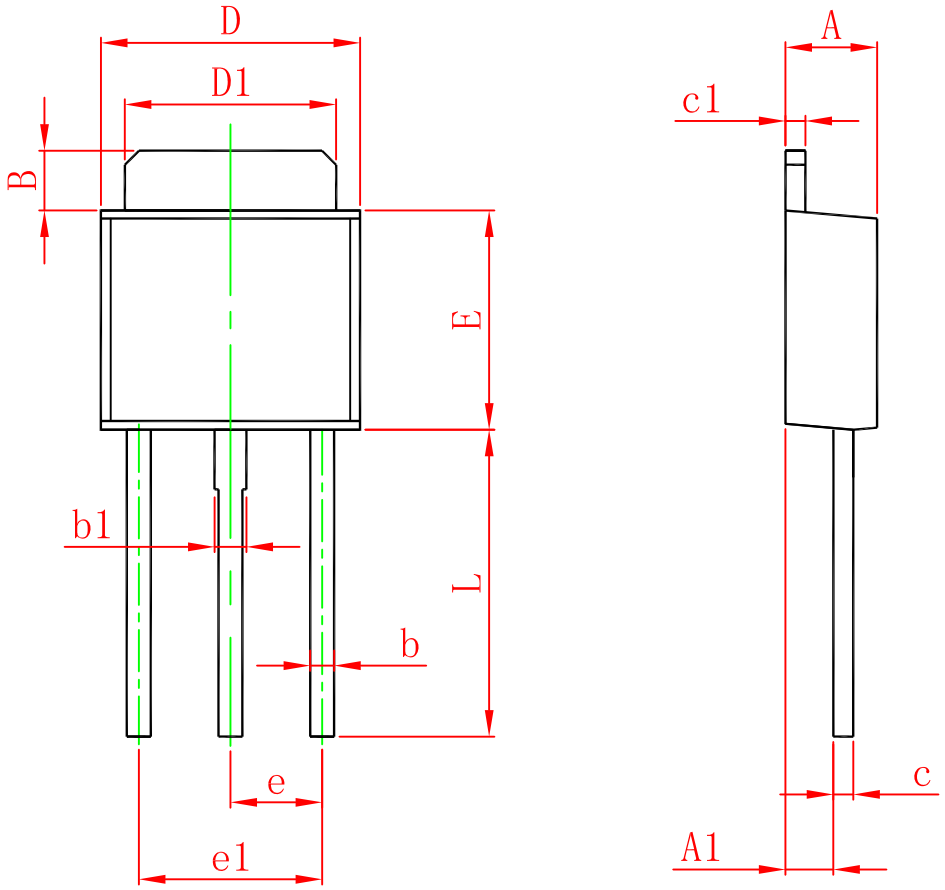
Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	-100	V
V_{CEO}	Collector-Emitter Voltage	-100	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current	-2	A
P_C	Collector Power Dissipation	1.5	W
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	83.3	℃/W
T_J,T_{stg}	Operation Junction and Storage Temperature Range	-55~+150	℃

ELECTRICAL CHARACTERISTICS (T_a=25℃ 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_{CEO}	V_{CE}=-80V,I_B=0			-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