JIANGSU CHANGJING ELECTRONICS TECHNOLOGY CO., LTD

TO-251-3L Plastic-Encapsulate Transistors

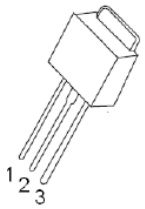
2SD2118 TRANSISTOR (NPN)

TO-251-3L

1.BASE

2.COLLECTOR

3.EMITTER



FEATURES

- Low $V_{CE(sat)}$
- Excellent DC Current Gain Characteristics

MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	50	V
V_{CEO}	Collector-Emitter Voltage	20	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current -Continuous	5	A
P_C	Collector Power Dissipation	1	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-55-150	℃

ELECTRICAL CHARA CTERISTICS (T_a=25℃ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=50ÕA,I_E=0	50			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C =1mA,I_B=0	20			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=50ÕA,I_C=0	6			V
Collector cut-off current	I_{CBO}	V_{CB}=40V,I_E=0			0.5	ÕA
Emitter cut-off current	I_{EBO}	V_{EB}=5V,I_C=0			0.5	ÕA
DC current gain	h_{FE}	V_{CE}=2V,I_C=0.5A	120		390	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=4A,I_B=100mA			1	V
Transition frequency	f_T	V_{CE}=6V,I_C=50mA,f=100MHz		150		MHz
Collector output capacitance	C_{ob}	V_{CB}=20V,I_E=0,f=1MHz		30		pF

CLASSIFIC ATION of h_{FE}

Rank	Q	R
Range	120-270	180-390

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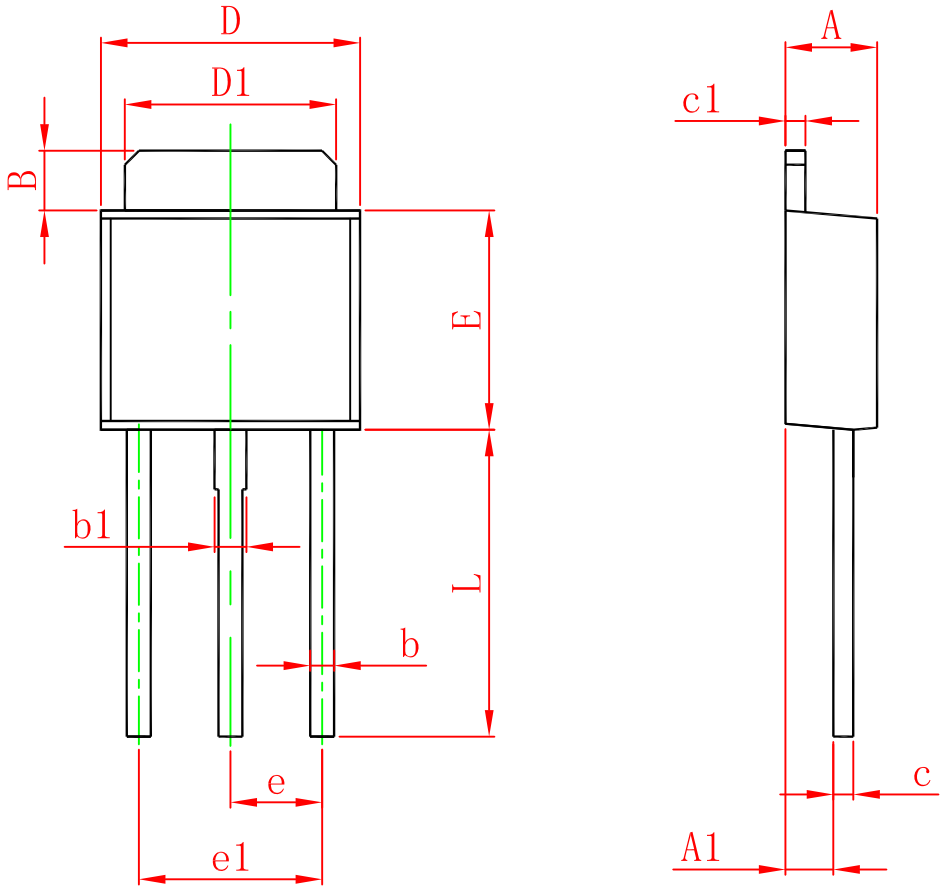

Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	2.200	2.400	0.087	0.094
A1	1.050	1.350	0.042	0.054
B	1.350	1.650	0.053	0.065
b	0.500	0.700	0.020	0.028
b1	0.700	0.900	0.028	0.035
c	0.430	0.580	0.017	0.023
c1	0.430	0.580	0.017	0.023
D	6.350	6.650	0.250	0.262
D1	5.200	5.400	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