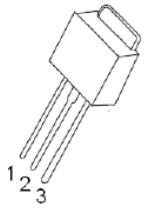
JIANGSU CHANGJING ELECTRONICS TECHNOLOGY CO., LTD

JSCJ TO-251-3L Plastic-Encapsulate Transistors

2SD1758 TRANSISTOR (NPN)

TO-251-3L



1.BASE

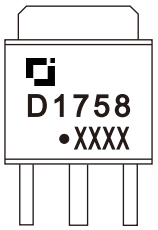
2.COLLECTOR

3.EMITTER

FEATURES

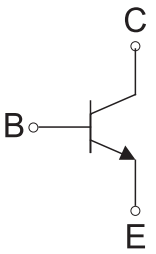
- Low $V_{CE(sat)}$

MARKING



D1758=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	40	V
V_{CEO}	Collector-Emitter Voltage	32	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current -Continuous	2	A
P_C	Collector dissipation	1.2	W
T_J,T_{stg}	Operation Junction and Storage Temperature Range	-55-150	℃

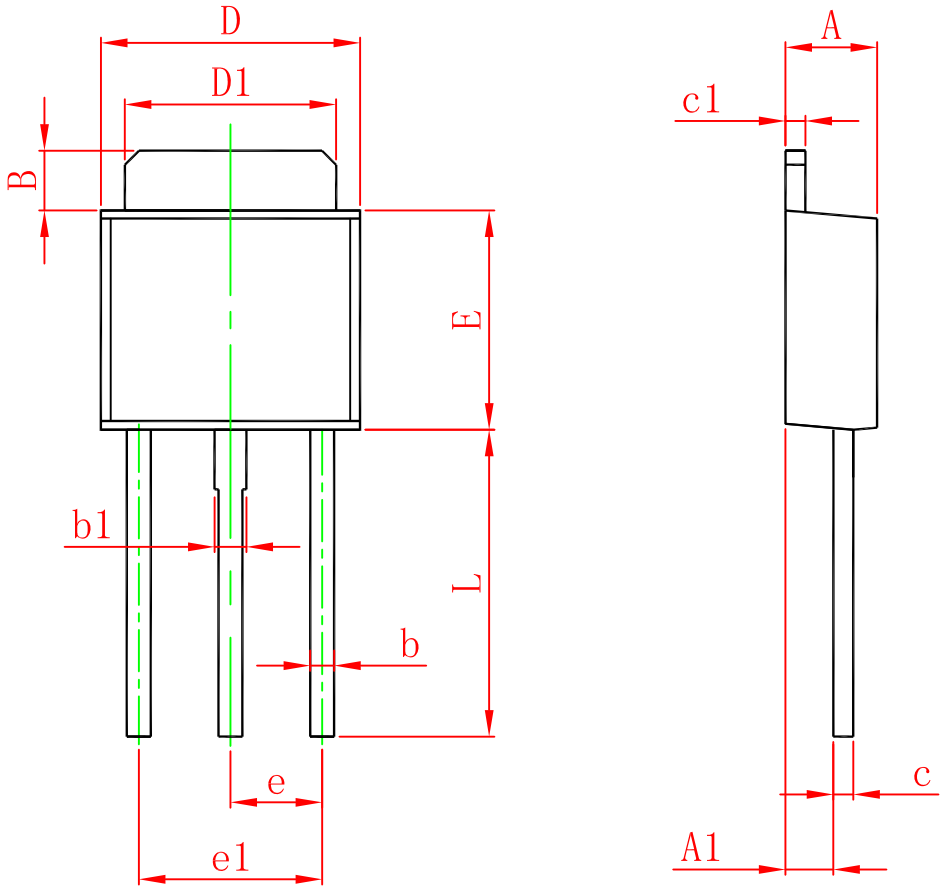
ELECTRICAL CHARACTERISTICS (T_a=25℃ unless other wise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=50μA, I_E=0	40			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=1mA, I_B=0	32			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=50μA, I_C=0	5			V
Collector cut-off current	I_{CBO}	V_{CB}=20V, I_E=0			1	μA
Emitter cut-off current	I_{EBO}	V_{EB}=4V, I_C=0			1	μA
DC current gain	h_{FE}	V_{CE}=3V, I_C=500mA	82		390	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=2A, I_B=0.2A			0.8	V
Transition frequency	f_T	V_{CE}=5V, I_C=50mA, f=100MHz		100		MHz
Collector output capacitance	C_{ob}	V_{CB}=10V, I_E=0, f=1MHz		30		pF

CLASSIFICATION OF h_{FE}

Rank	P	Q	R
Range	82-180	120-270	180-390

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