



JSCJ TO-251-3L Plastic-Encapsulate Transistors

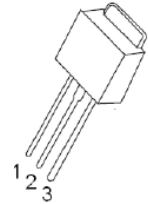
2SD1802 TRANSISTOR (NPN)

FEATURES

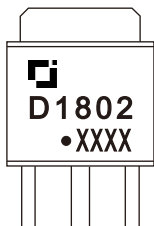
- Adoption of FBET,MBIT Processes
- Large Current Capacity and Wide ASO
- Low Collector-to-Emitter Saturation Voltage
- Fast Switching Speed

TO-251-3L

- 1.BASE
2.COLLECTOR
3.EMITTER

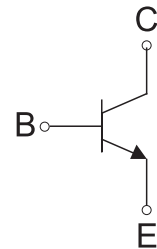


MARKING



D1802=Device code
Solid dot=Green moldinn compound device,
if none,the normal device
XXXX=Code

Equivalent Circuit



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

Symbol	Parameter	Value	Unit
V_{CBO}	Collector Base Voltage	60	V
V_{CEO}	Collector-Emitter Voltage	50	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current –Continuous	3	A
P_C	Collector Power Dissipation	1	W
T_J, T_{stg}	Operation Junction and Storage Temperature Range	-55-150	°C

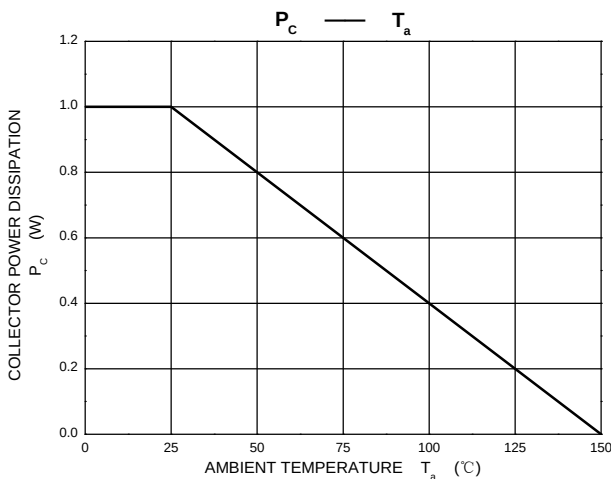
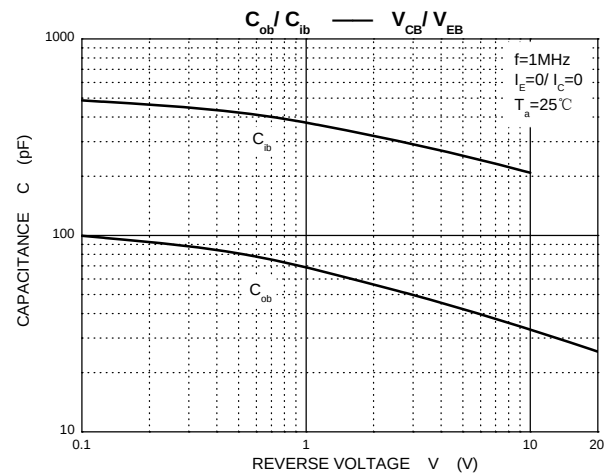
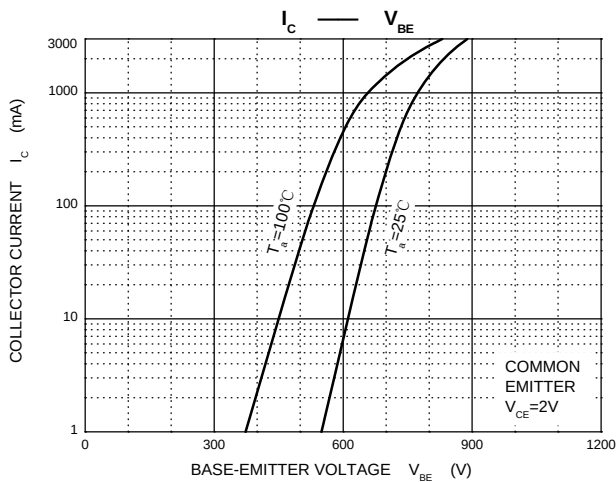
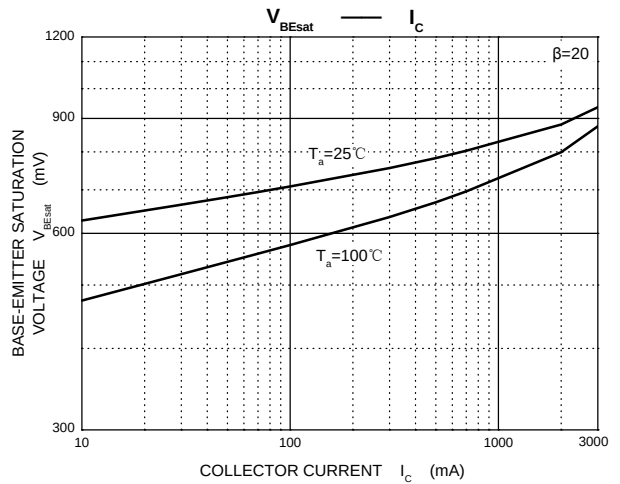
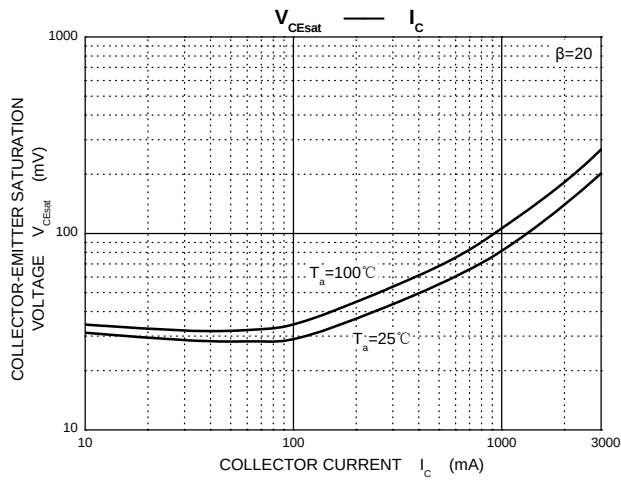
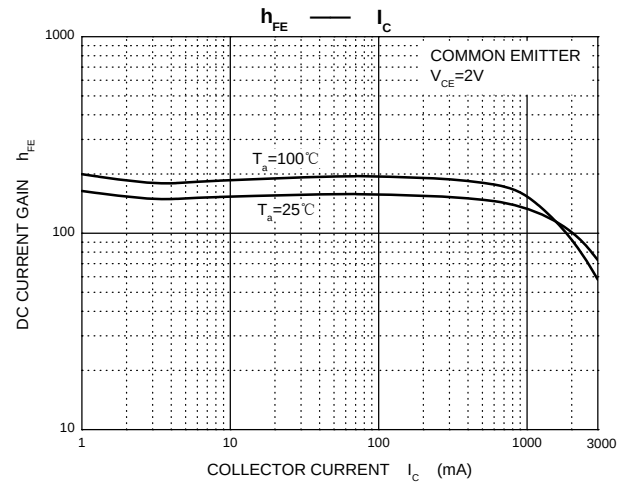
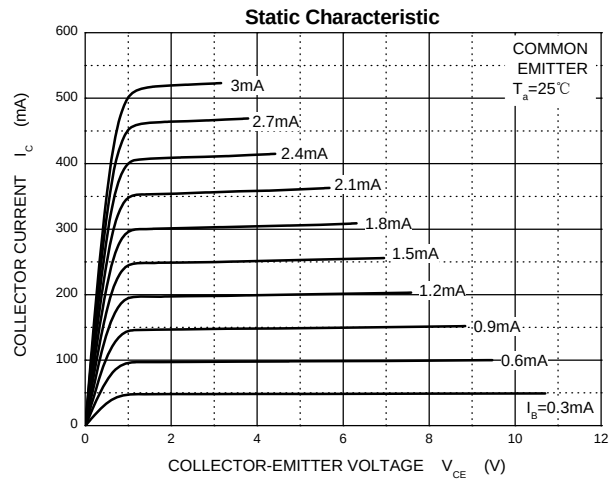
ELECTRICAL CHARACTERISTICS (T_a=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Ma	
Collector-base breakdown voltage	V _{(BR)CBO}	I _C =10μA, I _E =0	60			V
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C =1mA, I _B =0	50			V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E =10μA, I _C =0	6			V
Collector cut-off current	I _{CBO}	V _{CB} =40V, I _E =0			1	μA
Emitter cut-off current	I _{EBO}	V _{EB} =4V, I _C =0			1	μA
DC current gain	h _{FE(1)}	V _{CE} =2V, I _C =100mA	100		560	
	h _{FE(2)}	V _{CE} =2V, I _C =3A	35			
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =2A, I _B =100mA			0.5	V
Base-emitter saturation voltage	V _{BE(sat)}	I _C =2A, I _B =100mA			1.2	V
Transition frequency	f _T	V _{CE} =10V, I _C =50mA		150		MHz
Collector output capacitance	C _{ob}	V _{CB} =10V, I _E =0, f=1MHz		25		pF

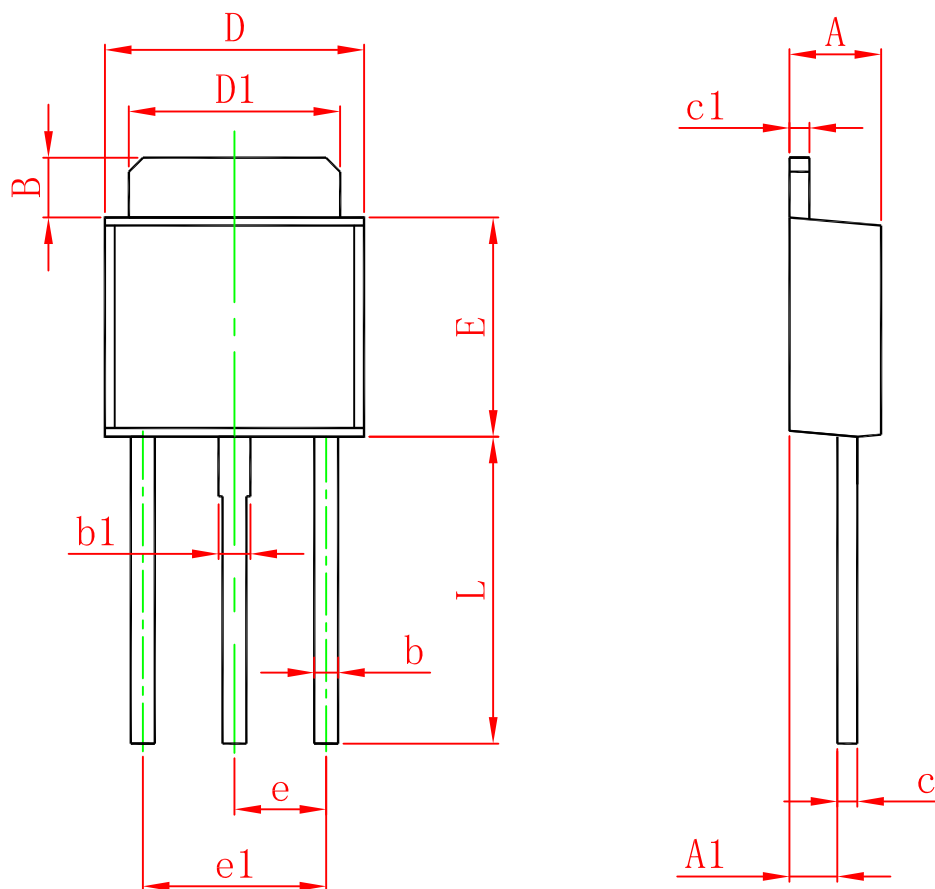
CLASSIFICATION OF h_{FE(1)}

Rank	R	S	T	U
Range	100-200	140-280	200-400	280-560

Typical Characteristics



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