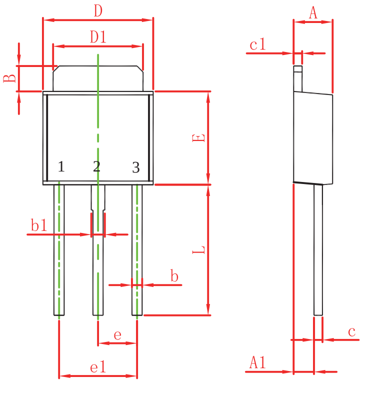
FTD2118I TRANSISTOR (NPN)

FEATURES

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

MAXIMUM RATINGS (Ta=25℃)

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	℃



DIM	MILLIMETERS
A	2.20 ± 0.2
B	1.50 ± 0.15
c	0.5 ± 0.07
D	6.50 ± 0.15
e	2.30 typ
L	7.70 ± 0.2
A1	1.20 ± 0.05
b1	0.8 ± 0 1
c1	0.5 ± 0.07
D1	5.1 ± 0.10
e1	4.6 ± 0.1
E	5.4 ± 0 20

1 Base
2 Collector
3 Emitter

TO-251 (I-PAK)

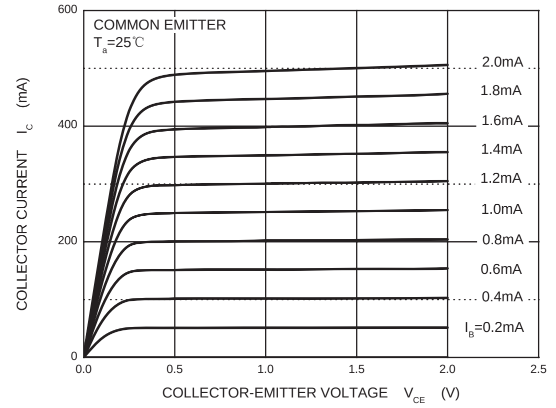
ELECTRICAL CHARA CTERISTICS (Ta=25℃ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	$V_{(BR)CBO}$	I_C=50μA,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=50μA,I_C=0 6				V
Collector cut- off current	I_{CBO}	V_{CB}=40V,I_E=0			0.5	μA
Emitter cut- off current	I_{EBO}	V_{EB}=5V,I_C=0			0.5	μA
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

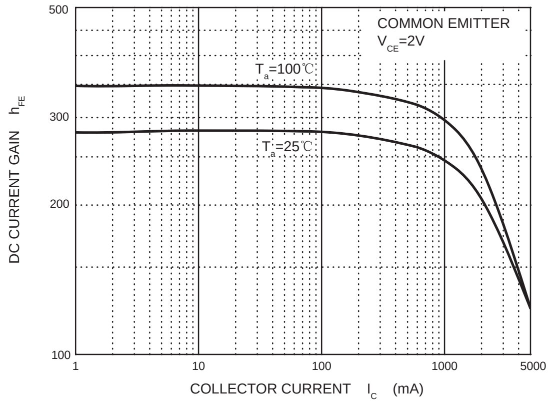
CLASSIFIC ATION OF h_{FE}

Rank	Q	R
Range	120- 270	180- 390

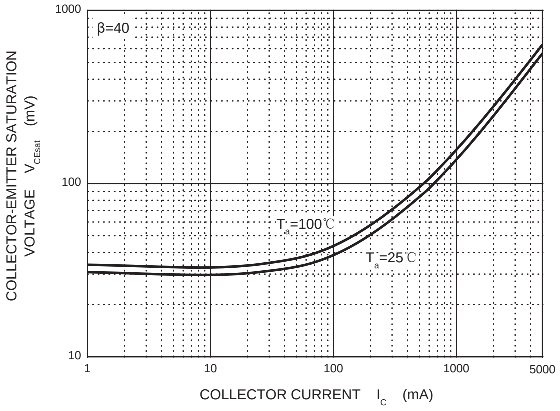
Typical Characteristics



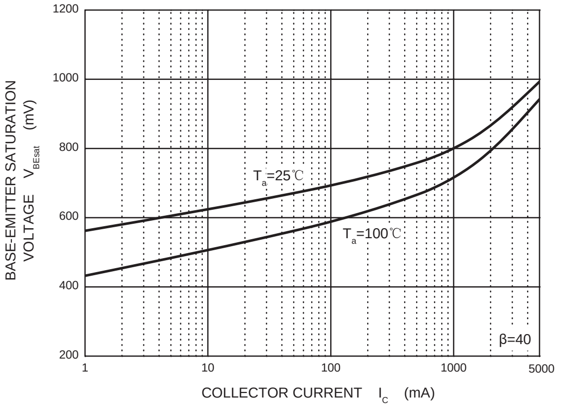
Static Characteristic



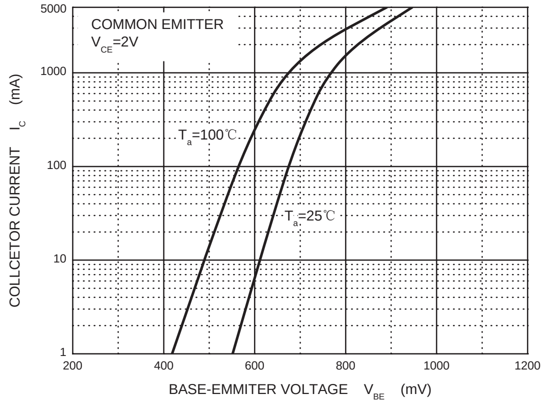
h_{FE} —— I_C



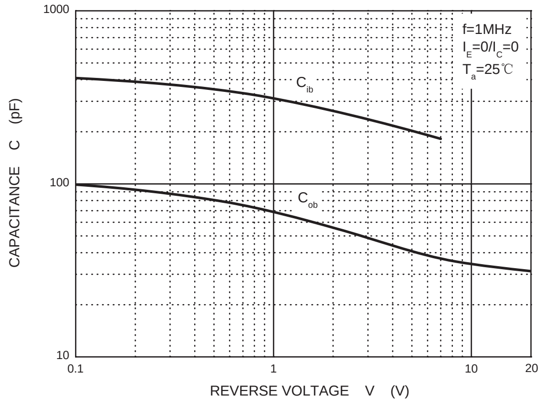
V_{CEsat} —— I_C



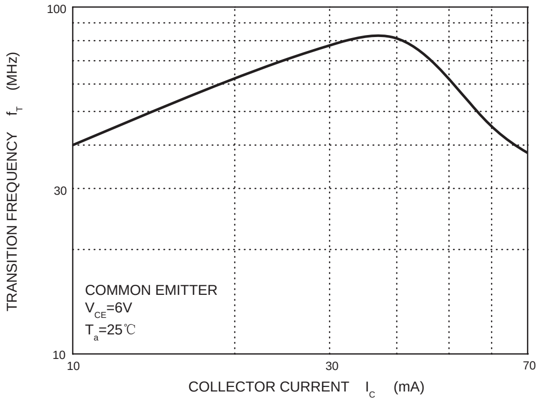
V_{BEsat} —— I_C



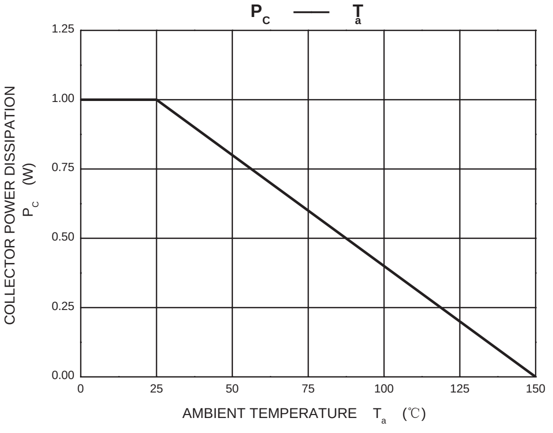
I_C —— V_{BE}



C_{ob}/ C_{ib} —— V_{CB}/ V_{EB}



f_T —— I_C



P_C —— T_a