JIANGSU CHANGJING ELECTRONICS TECHNOLOGY CO., LTD.

TO-220F Plastic-Encapsulate Transistors

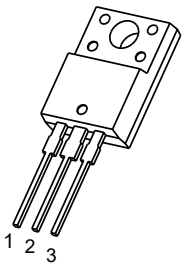
TIP41CF TRANSISTOR (NPN)

FEATURES

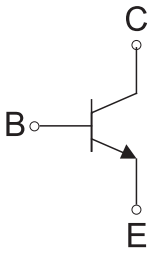
- Medium Power Linear Switching Applications

TO-220F

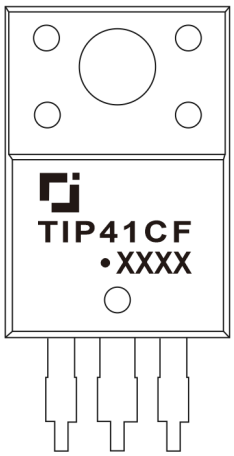
1. BASE
2. COLLECTOR
3. EMITTER



Equivalent Circuit



MARKING



TIP41CF=Device code Solid dot=Green moldinn compound device, if none,the normal device
XXXX=Code

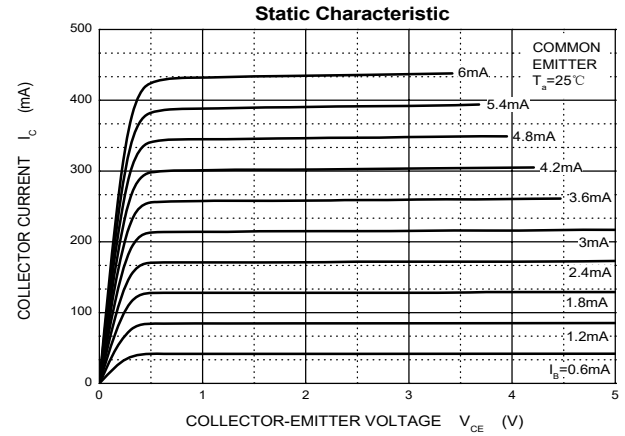
MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

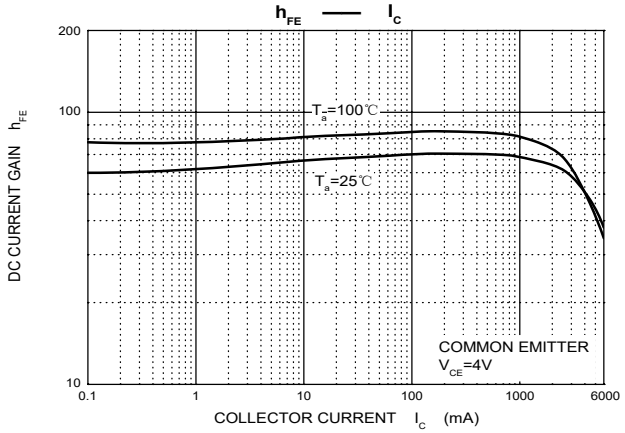
Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	100	V
V_{CEO}	Collector-Emitter Voltage	100	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current -Continuous	6	A
P_C	Collector Power Dissipation	2	W
$R_{\Theta JA}$	Thermal Resistance From Junction To Ambient	62.5	℃/W
T_J,T_{stg}	Operation Junction and Storage Temperature Range	-55~+150	℃

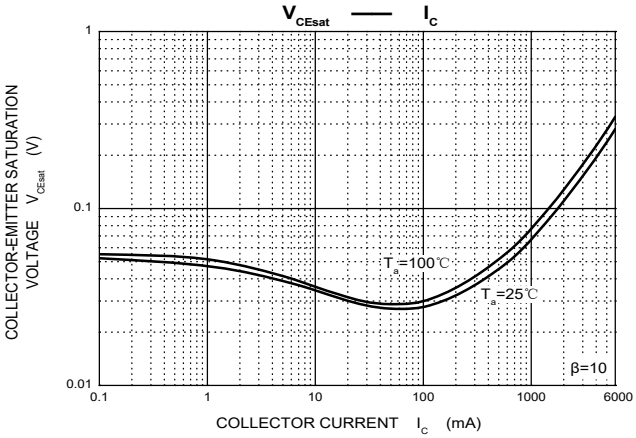
ELECTRICAL CHARACTERISTICS (T_a=25℃ unless otherwise specified)

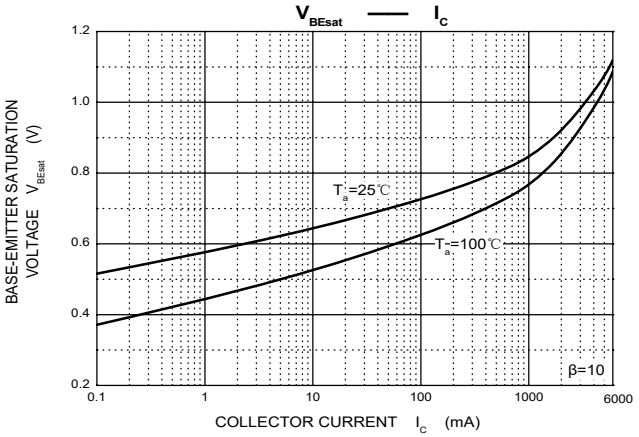
Parameter	Symbol	Test conditions	Min	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C= 1mA, I_E=0	100		V
Collector-emitter breakdown voltage	$V_{CEO(sus)}$	I_C= 30mA, I_B=0	100		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E= 1mA, I_C=0	5		V
Collector cut-off current	I_{CBO}	V_{CB}=100V, I_E=0		0.4	mA
Collector cut-off current	I_{CEO}	V_{CE}= 60V, I_B= 0		0.7	mA
Emitter cut-off current	I_{EBO}	V_{EB}=5V, I_C=0		1	mA
DC current gain	$h_{FE(1)}$	V_{CE}= 4V, I_C= 0.3A	30		
	$h_{FE(2)}$	V_{CE}=4 V, I_C= 3A	15	75	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=6A, I_B=0.6A		1.5	V
Base-emitter voltage	$V_{BE(on)}$	V_{CE}= 4V, I_C=6A		2	V
Transition frequency	f_T	V_{CE}=10V , I_C=0.5A f =1MHz	3		MH_Z

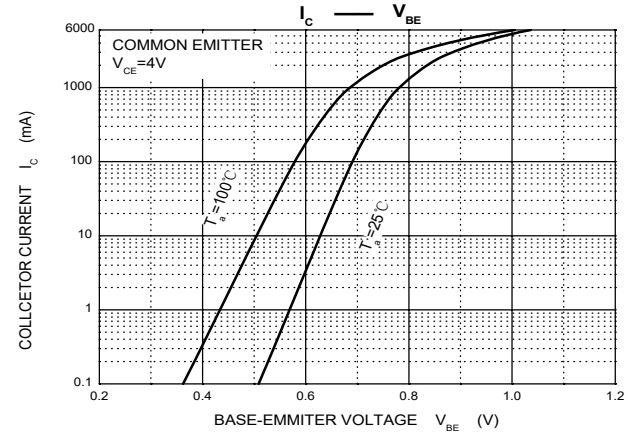
Typical Characteristics

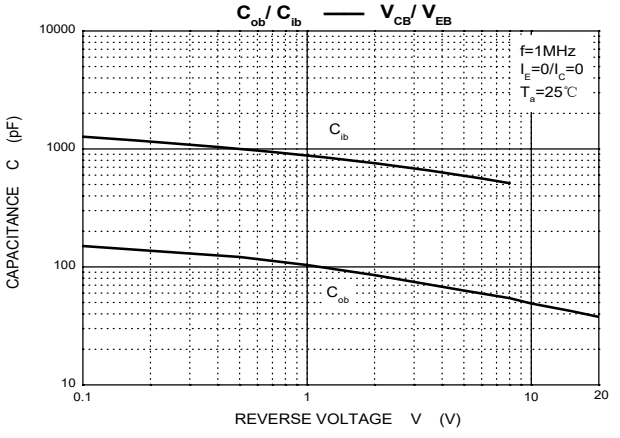


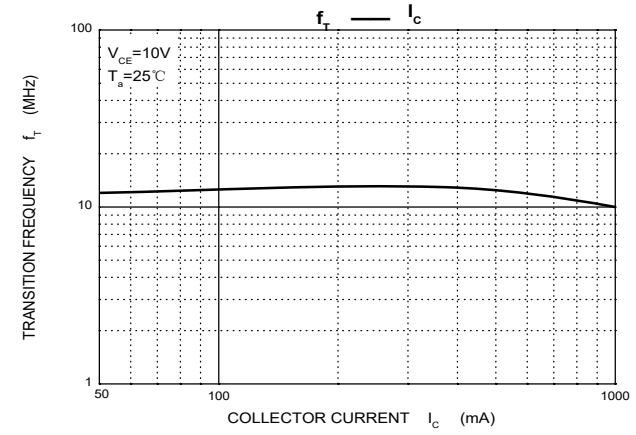


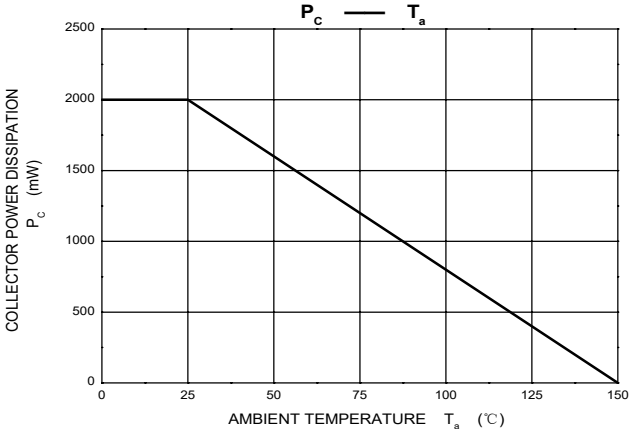




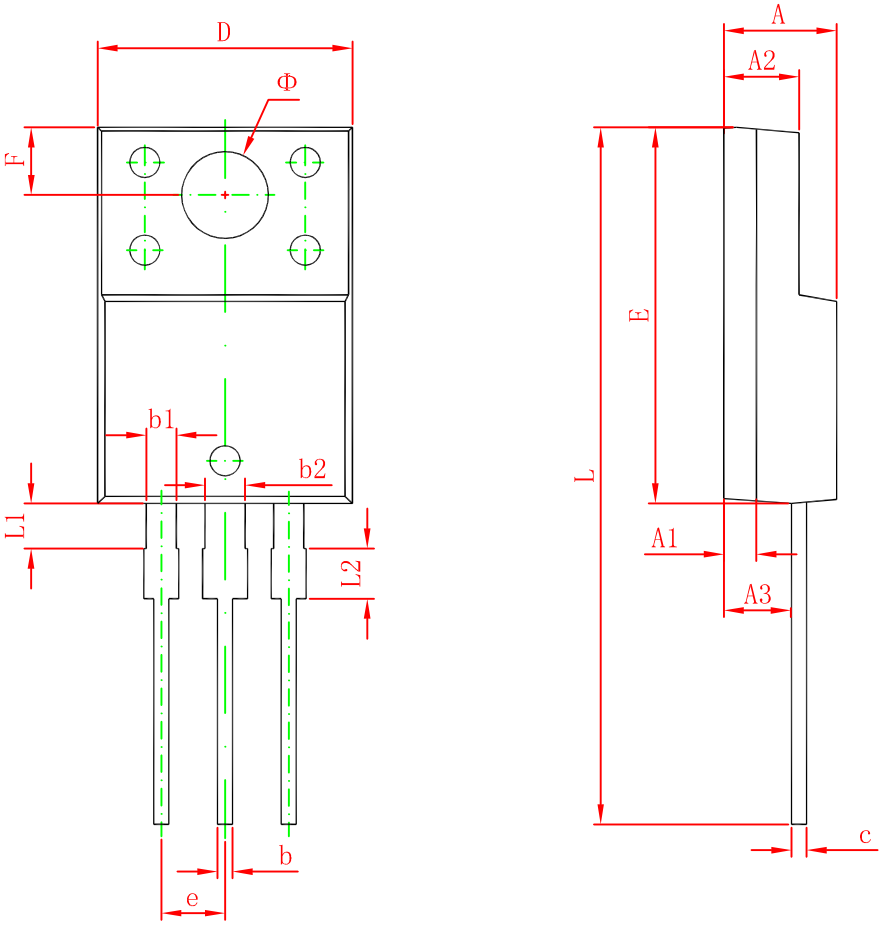








TO-220F Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	4.300	4.700	0.169	0.185
A1	1.300 REF.		0.051 REF.	
A2	2.800	3.200	0.110	0.126
A3	2.500	2.900	0.098	0.114
b	0.500	0.750	0.020	0.030
b1	1.100	1.350	0.043	0.053
b2	1.500	1.750	0.059	0.069
c	0.500	0.750	0.020	0.030
D	9.960	10.360	0.392	0.408
E	14.800	15.200	0.583	0.598
e	2.540 TYP.		0.100 TYP.	
F	2.700 REF.		0.106 REF.	
Φ	3.300	3.700	0.130	0.146
L	28.000	28.400	1.102	1.118
L1	1.700	1.900	0.067	0.075
L2	0.900	1.100	0.035	0.043