



TO-251-3L Plastic-Encapsulate Transistors

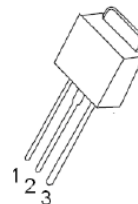
MJD41C TRANSISTOR (NPN)

FEATURES

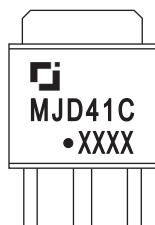
- Designed for General Purpose Amplifier and Low Speed Switching Applications.
- Lead Formed for Surface Mount Applications in Plastic Sleeves (No Suffix)
- Straight Lead Version in Plastic Sleeves ("–1" Suffix)
- Lead Formed Version in 16 mm Tape and Reel ("T4" Suffix)
- Electrically Similar to Popular TIP41 and TIP42 Series
- Monolithic Construction With Built-in Base-Emitter Resistors

TO-251-3L

- 1.BASE
2.COLLECTOR
3.EMITTER

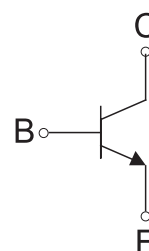


MARKING



MJD41C=Device code
Solid dot=Green moldinn compound device,
if none,the normal device
XXXX=Code

Equivalent Circuit



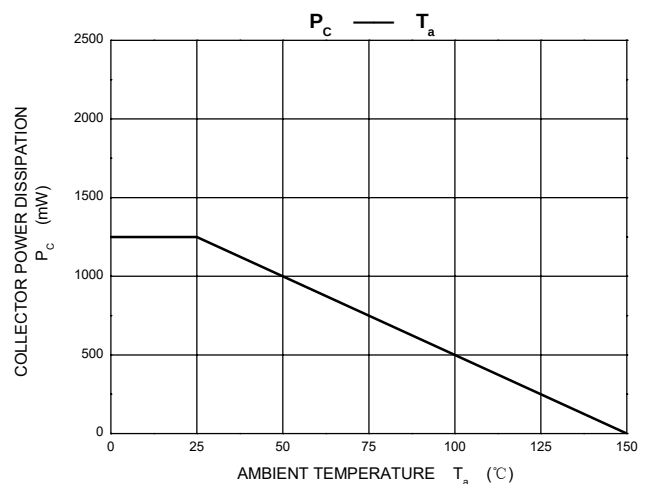
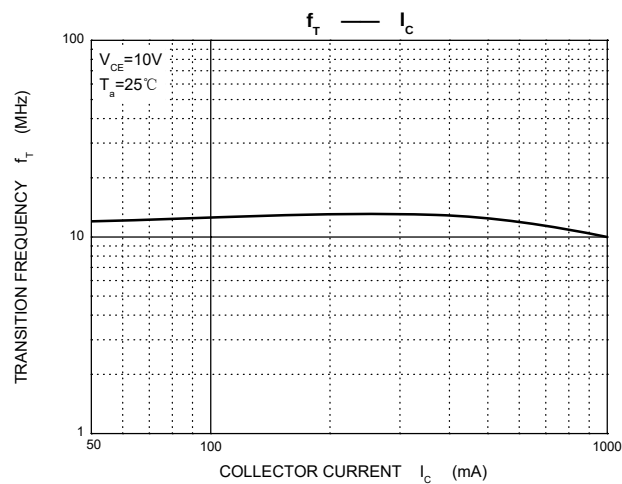
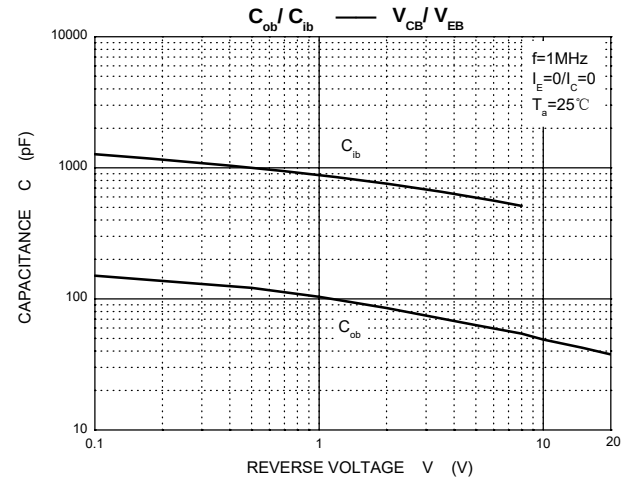
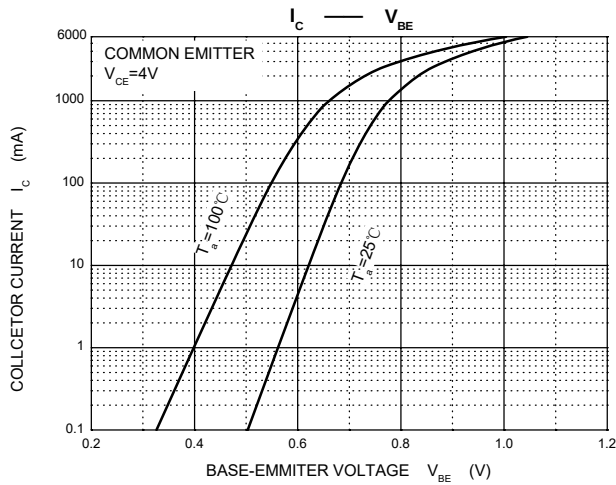
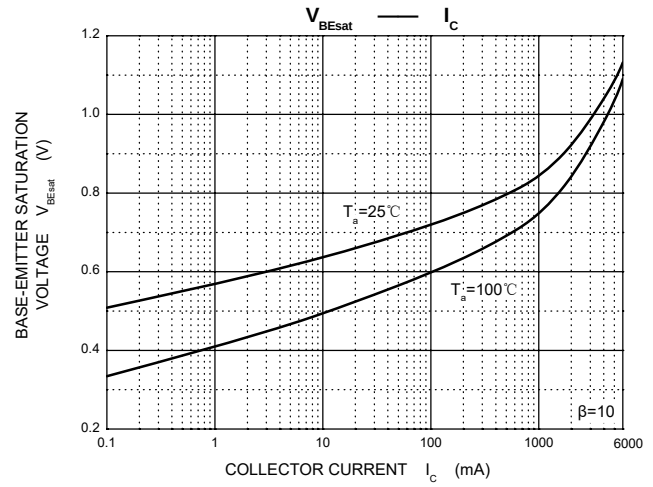
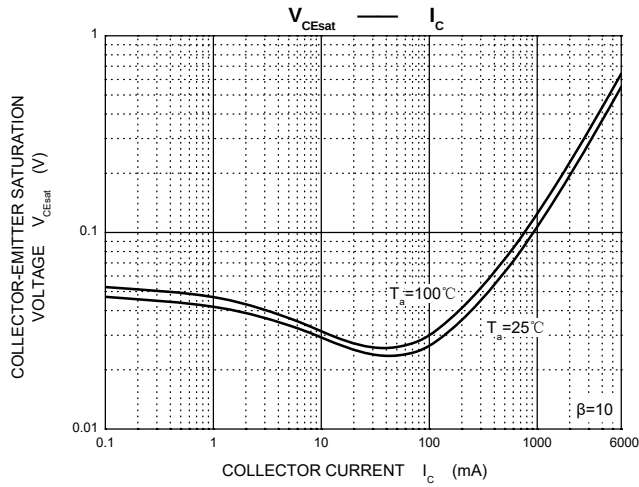
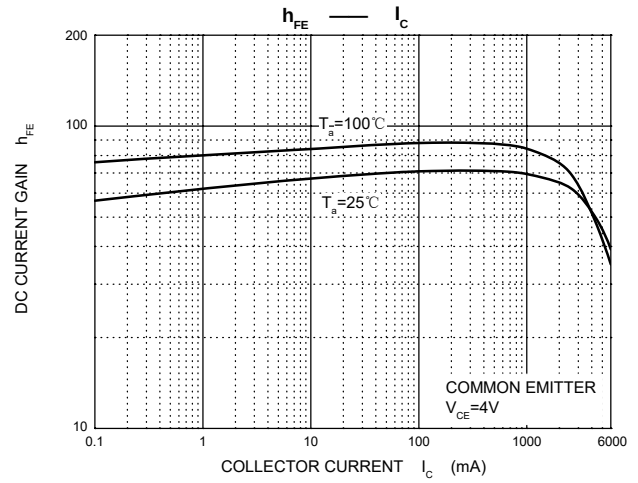
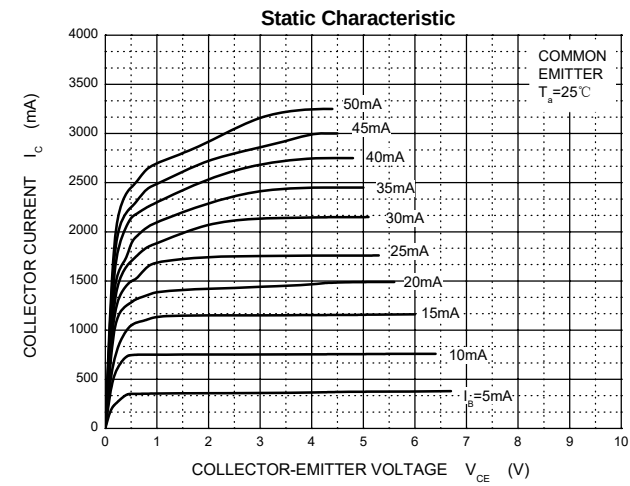
MAXIMUM RATINGS (Ta=25℃ unless otherwise noted)

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	1.25	W
T_J, T_{stg}	Operation Junction and Storage Temperature Range	-55-150	℃

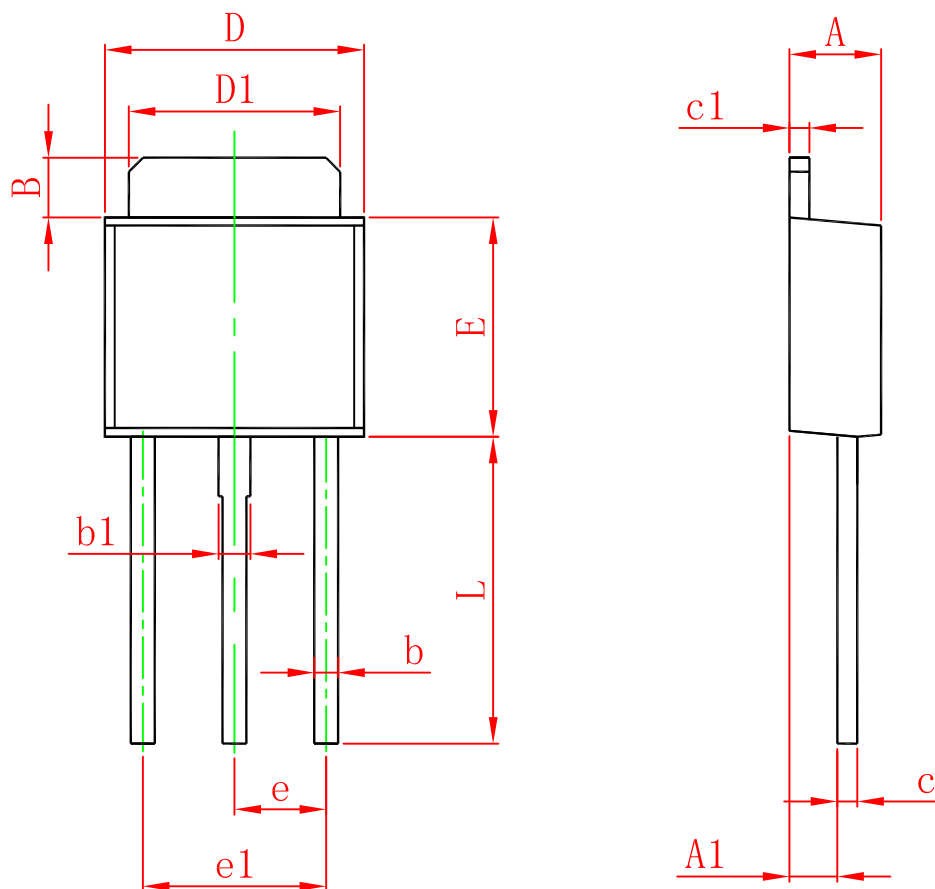
ELECTRICAL CHARACTERISTICS (T_a=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=100\mu A, I_E=0$	100			V
Collector-emitter breakdown voltage	$V_{CEO(sus)}$	$I_C=30mA, I_B=0$	100			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=100\mu A, I_C=0$	5			V
Collector cut-off current	I_{CEO}	$V_{CE}=60V, I_E=0$			50	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=5V, I_C=0$			0.5	mA
DC current gain	$h_{FE(1)}$	$V_{CE}=4V, I_C=0.3A$	30			
	$h_{FE(2)}$	$V_{CE}=4V, I_C=3A$	15		75	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=6A, I_B=0.6A$			1.5	V
Base-emitter voltage	V_{BE}	$V_{CE}=4V, I_C=6A$			2	V
Transition frequency	f_T	$V_{CE}=10V, I_C=500mA, f=1MHz$	3			MHz

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