



JSCJ TO-251-3L Plastic-Encapsulate Transistors

MJD3055 TRANSISTOR (NPN)

FEATURES

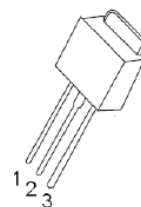
- Designed for General Purpose Amplifier and Low Speed Switching Applications
- Electrically Similar to MJE3055
- DC Current Gain Specified to 10A

TO-251-3L

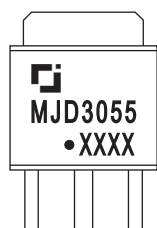
1.BASE

2.COLLECTOR

3.EMITTER



MARKING

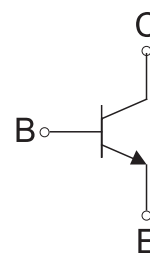


MJD3055=Device code

Solid dot=Green mold compound device,
if none, the normal device

XXXX=Code

Equivalent Circuit



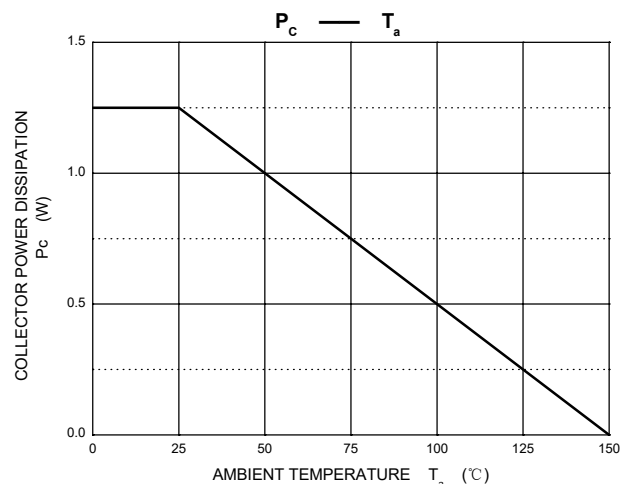
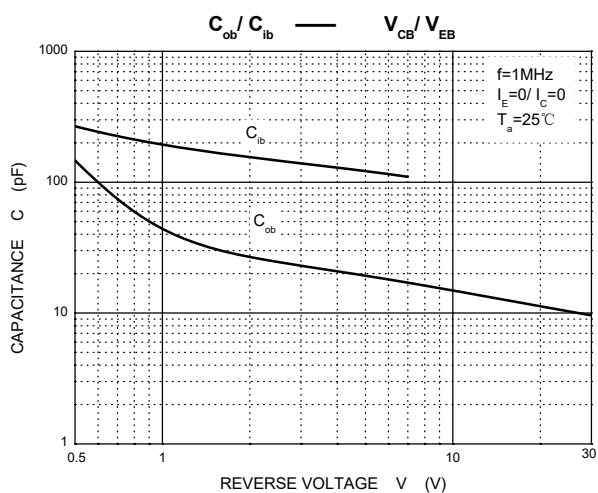
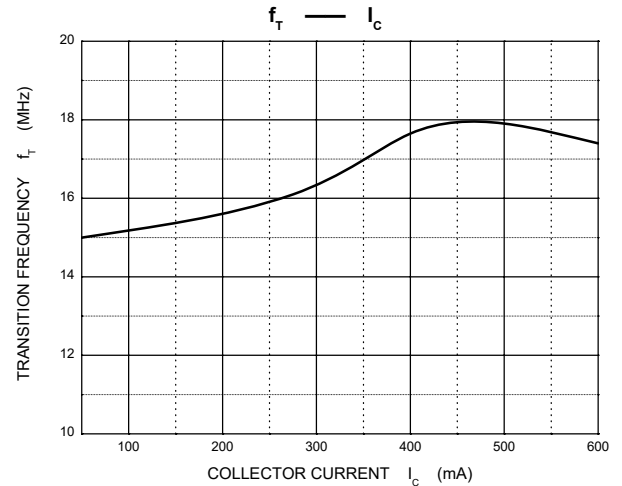
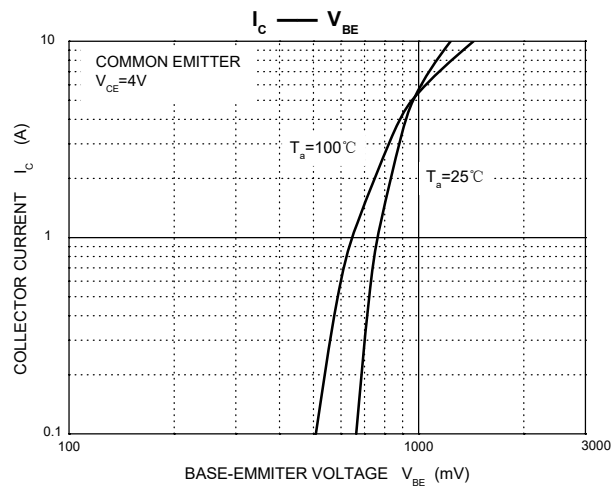
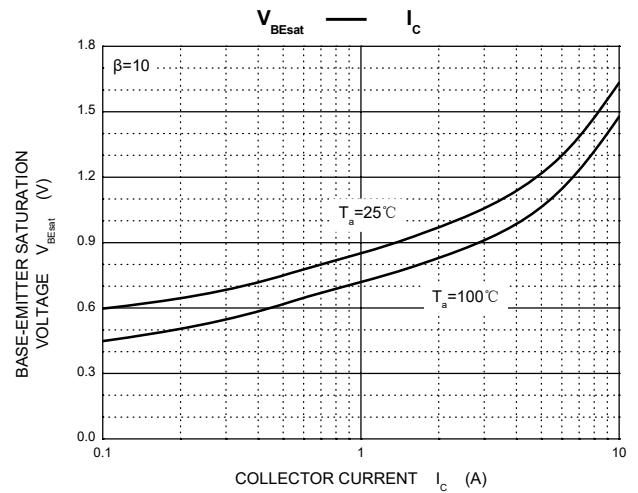
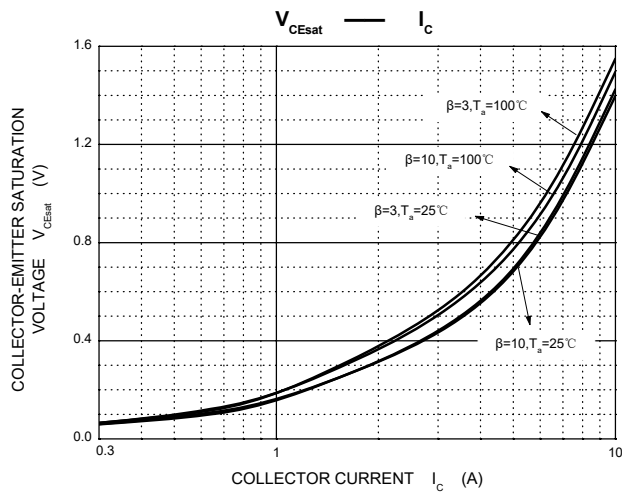
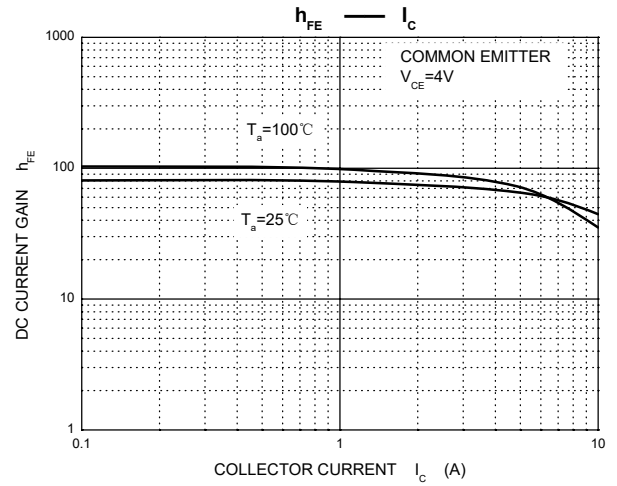
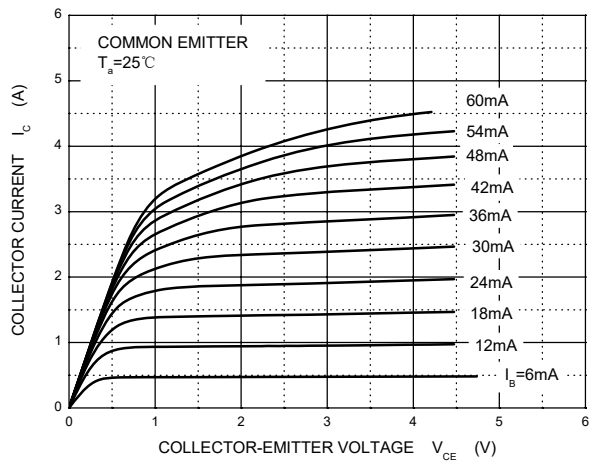
MAXIMUM RATINGS (T_a=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V _{CB0}	Collector-Base Voltage	70	V
V _{CE0}	Collector-Emitter Voltage	60	V
V _{EB0}	Emitter-Base Voltage	5	V
I _c	Collector Current -Continuous	10	A
P _c	Collector Power Dissipation	1.25	W
T _J , T _{stg}	Operation Junction and Storage Temperature Range	-55-150	°C

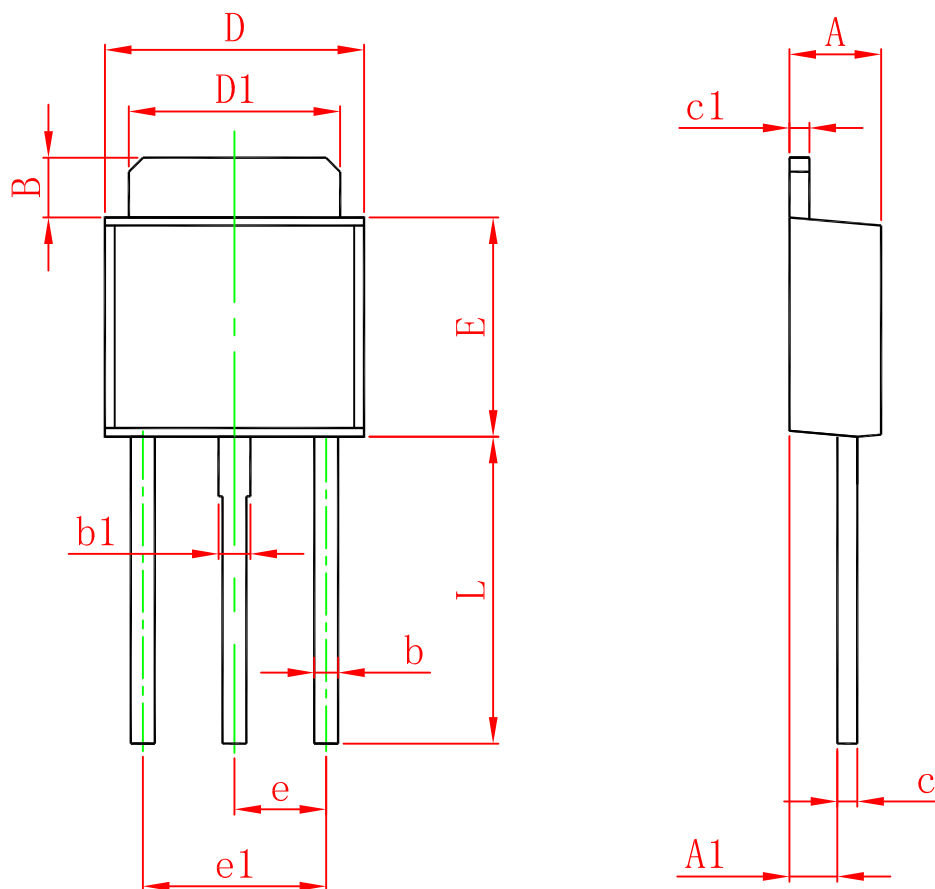
ELECTRICAL CHARACTERISTICS (T_a=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=1mA, I_E=0$	70			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=200mA, I_B=0$	60			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=1mA, I_C=0$	5			V
Collector cut-off current	I_{CBO}	$V_{CB}=70V, I_E=0$			0.02	mA
	I_{CEO}	$V_{CB}=30V, I_B=0$			50	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=5V, I_C=0$			0.5	mA
DC current gain	$h_{FE(1)}$	$V_{CE}=4V, I_C=4A$	20		100	
	$h_{FE(2)}$	$V_{CE}=4V, I_C=10A$	5			
Collector-emitter saturation voltage	$V_{CE(sat)(1)}$	$I_C=4A, I_B=0.4A$			1.1	V
	$V_{CE(sat)(2)}$	$I_C=10A, I_B=3.3A$			8	V
Base-emitter voltage	V_{BE}	$V_{CE}=4V, I_C=4A$			1.8	V
Transition frequency	f_T	$V_{CE}=10V, I_C=0.5A, f=500KHz$	2			MHz

Static Characteristic



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