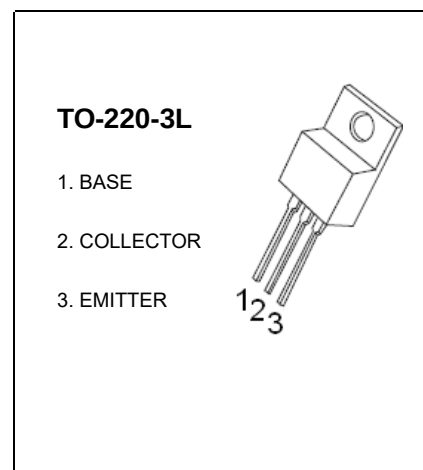


TO-220-3L Plastic-Encapsulate Transistors

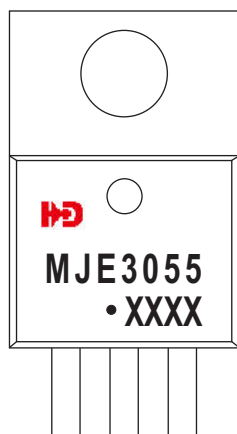
TRANSISTOR (NPN)

FEATURES

- General Purpose and Switching Applications

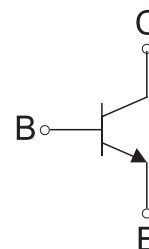


MARKING



MJE3055=Device code
Solid dot=Green mold compound device,
if none, the normal device
XXXX=Code

Equivalent Circuit



MAXIMUM RATINGS ($T_a=25^{\circ}\text{C}$ unless otherwise noted)

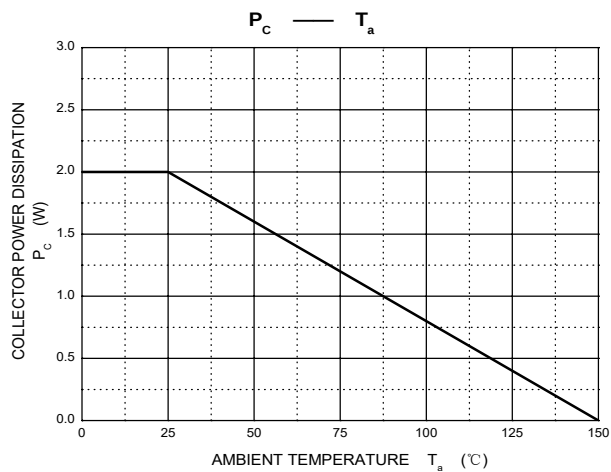
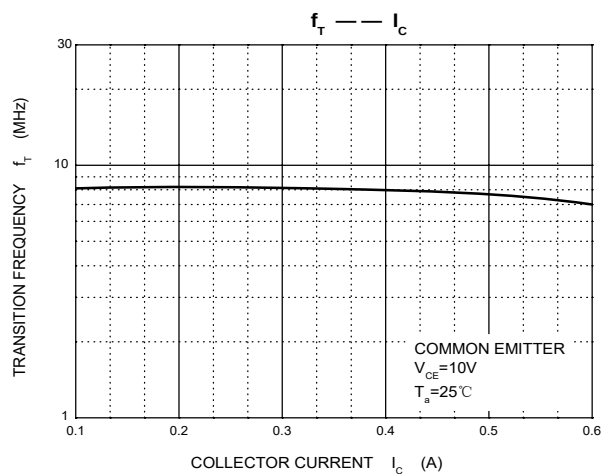
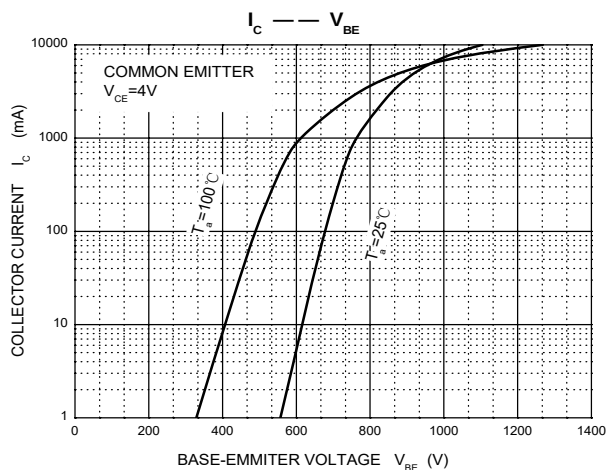
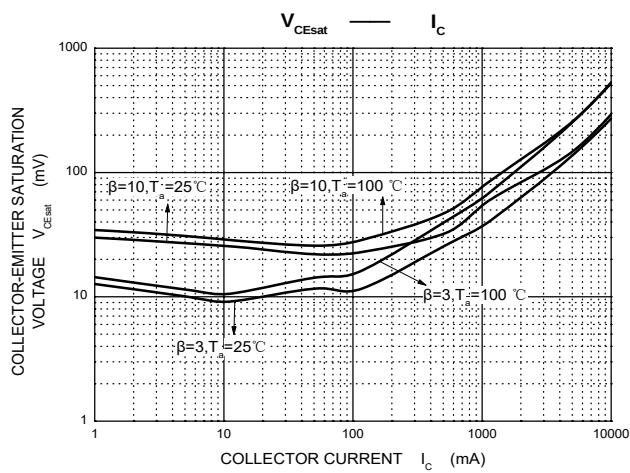
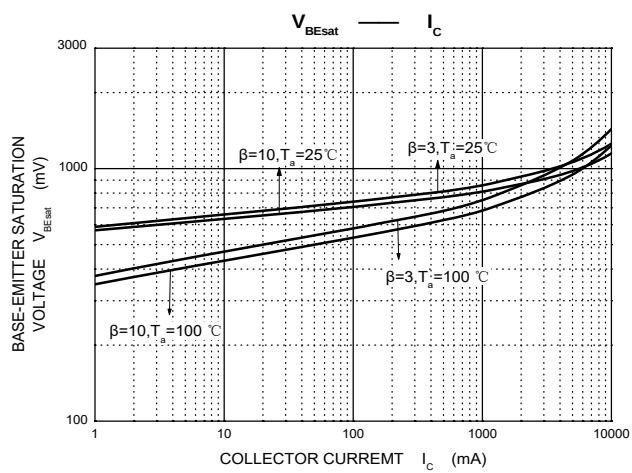
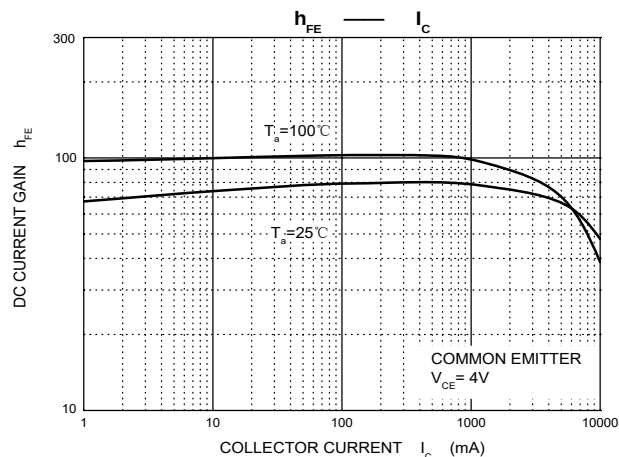
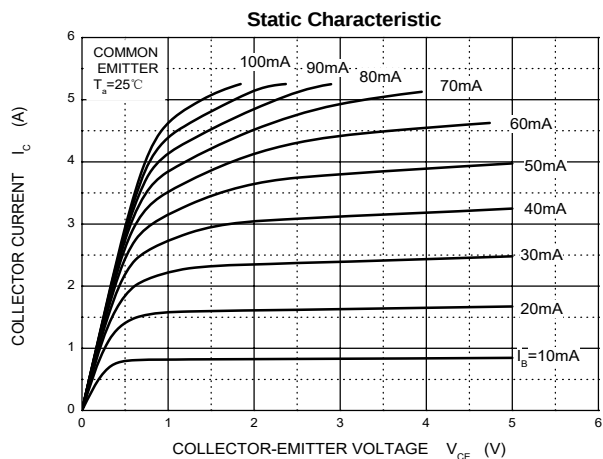
Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	70	V
V_{CEO}	Collector-Emitter Voltage	60	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current -Continuous	10	A
P_C	Collector Power Dissipation	2	W
T_j, T_{stg}	Operation Junction and Storage Temperature Range	-55-150	$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS ($T_a=25^{\circ}\text{C}$ unless otherwise specified)

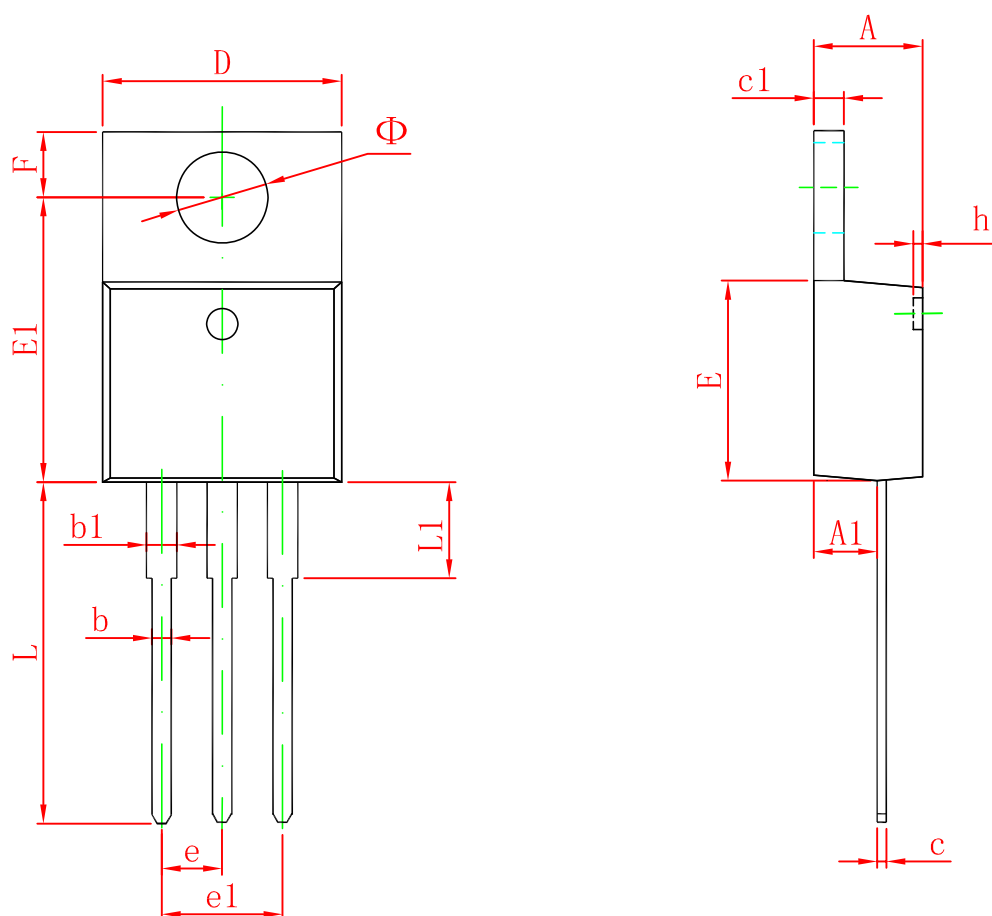
Parameter	Symbol	Test conditions	Min	Typ	Max	
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=1\text{mA}$, $I_E=0$	70			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=200\text{mA}$, $I_B=0$	60			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=1\text{mA}$, $I_C=0$	5			V
Collector cut-off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

Note: *Pulse test: $t_p \leq 300\mu\text{S}$, $\delta \leq 0.02$.

Typical Characteristics



TO-220- 3L Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	4.470	4.670	0.176	0.184
A1	2.520	2.820	0.099	0.111
b	0.710	0.910	0.028	0.036
b1	1.170	1.370	0.046	0.054
c	0.310	0.530	0.012	0.021
c1	1.170	1.370	0.046	0.054
D	10.010	10.310	0.394	0.406
E	8.500	8.900	0.335	0.350
E1	12.060	12.460	0.475	0.491
e	2.540 TYP		0.100 TYP	
e1	4.980	5.180	0.196	0.204
F	2.590	2.890	0.102	0.114
h	0.000	0.300	0.000	0.012
L	13.400	13.800	0.528	0.543
L1	3.560	3.960	0.140	0.156
Φ	3.735	3.935	0.147	0.155