

TO-252-2L Plastic-Encapsulate Transistors

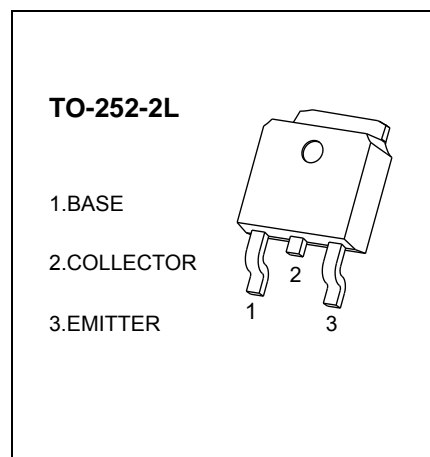
TRANSISTOR (NPN)

FEATURES

- Designed for General Purpose Amplifier and Low Speed Switching Applications
- Electrically Similar to EPE3055
- DC Current Gain Specified to 10 Amperes

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

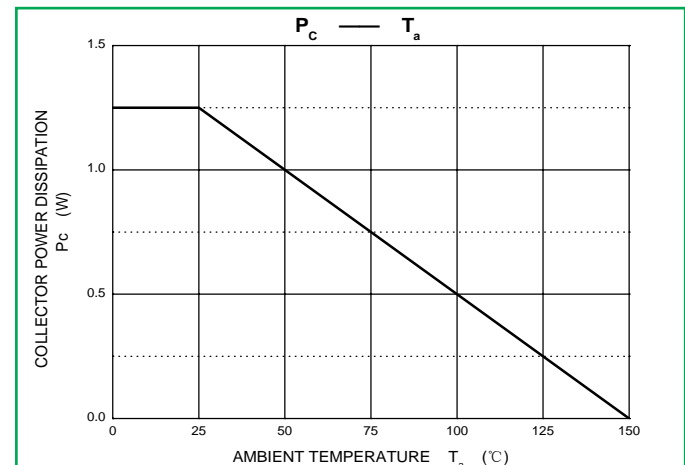
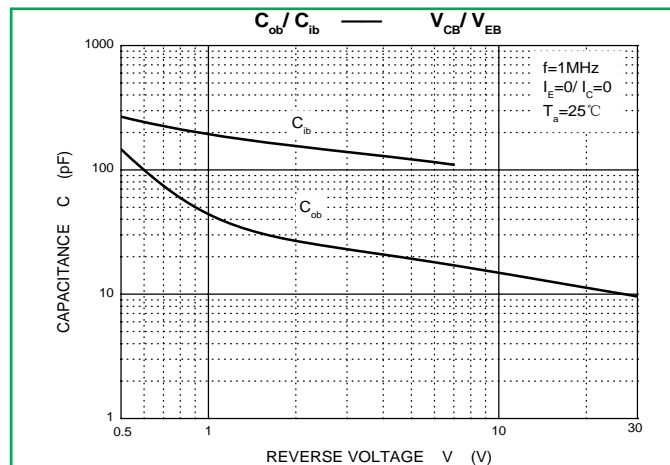
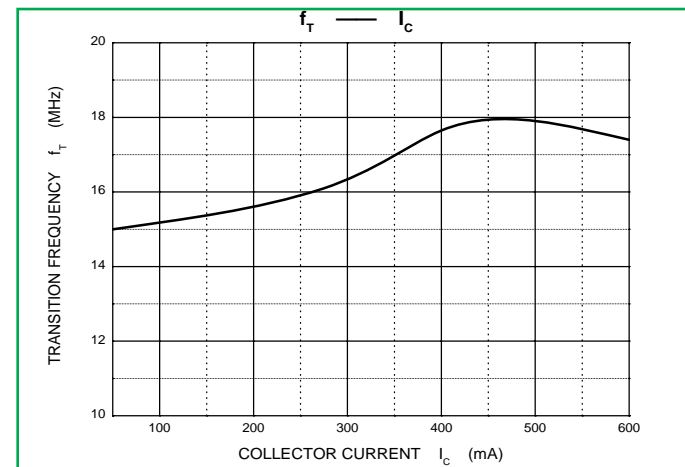
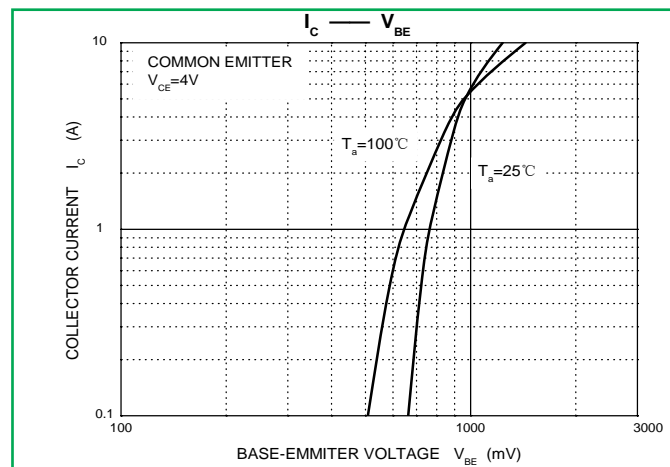
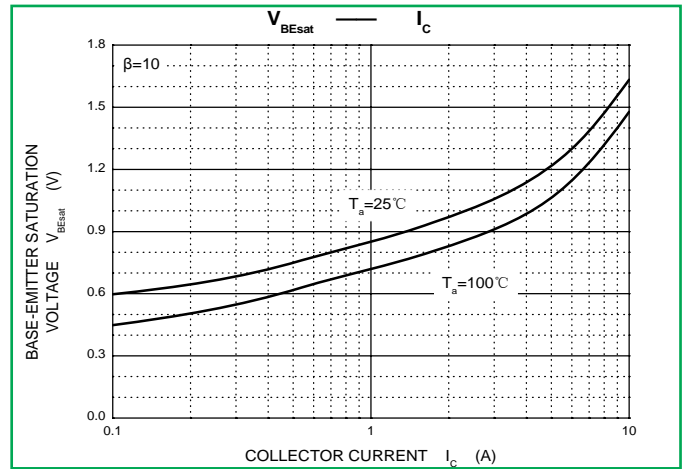
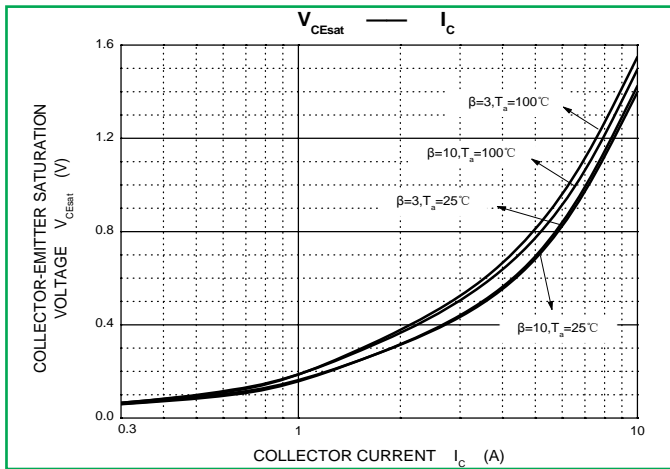
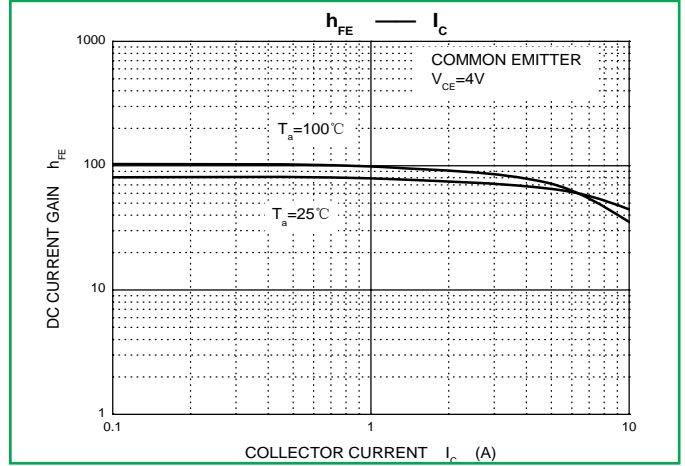
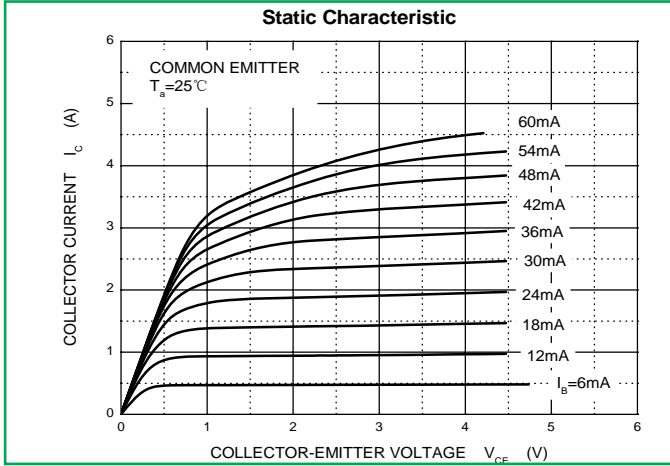
Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	70	V
V_{CEO}	Collector-Emitter Voltage	60	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current -Continuous	10	A
P_C	Collector Power Dissipation	1.25	W
T_J, T_{stg}	Operating Junction and Storage Temperature Range	-55-150	$^\circ\text{C}$



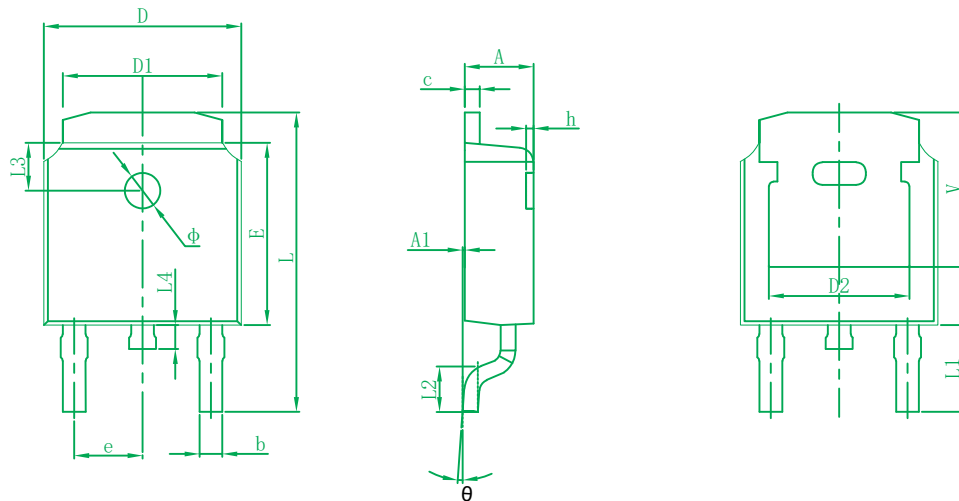
ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
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}	$V_{CB}=70\text{V}, I_E=0$			0.02	mA
	I_{CEO}	$V_{CB}=30\text{V}, I_B=0$			50	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=5\text{V}, I_C=0$			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	$V_{CE(sat)(1)}$	$I_C=4\text{A}, I_B=0.4\text{A}$			1.1	V
	$V_{CE(sat)(2)}$	$I_C=10\text{A}, I_B=3.3\text{A}$			8	V
Base-emitter voltage	V_{BE}	$V_{CE}=4\text{V}, I_C=4\text{A}$			1.8	V
Transition frequency	f_T	$V_{CE}=10\text{V}, I_C=0.5\text{A}, f=500\text{KHz}$	2			MHz

Typical Characteristics

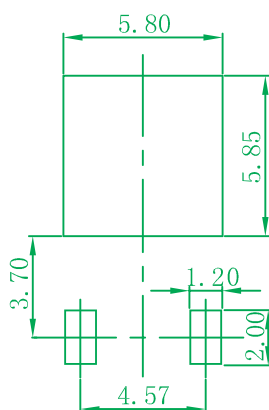


TO-252-2L Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	2.200	2.400	0.087	0.094
A1	0.000	0.127	0.000	0.005
b	0.635	0.770	0.025	0.030
c	0.460	0.580	0.018	0.023
D	6.500	6.700	0.256	0.264
D1	5.100	5.460	0.201	0.215
D2	4.830 REF.		0.190 REF.	
E	6.000	6.200	0.236	0.244
e	2.186	2.386	0.086	0.094
L	9.712	10.312	0.382	0.406
L1	2.900 REF.		0.114 REF.	
L2	1.400	1.700	0.055	0.067
L3	1.600 REF.		0.063 REF.	
L4	0.600	1.000	0.024	0.039
Φ	1.100	1.300	0.043	0.051
θ	0°	8°	0°	8°
h	0.000	0.300	0.000	0.012
V	5.250 REF.		0.207 REF.	

TO-252-2L Suggested Pad Layout



Note:

1. Controlling dimension: in millimeters.
2. General tolerance: ± 0.05 mm.
3. The pad layout is for reference purposes only.