TO-252-2L Plastic-Encapsulate Transistors

TRANSISTOR (PNP)

FEATURES

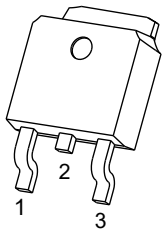
- Designed for General Purpose Amplifier and Low Speed Switching Applications
- Lead Formed for Surface Mount Applications in Plastic Sleeves (No Suffix)
- Straight Lead Version in Plastic Sleeves (“–1” Suffix)
- Lead Formed Version in 16 mm Tape and Reel (“T4” Suffix)
- AEC-Q101 qualified (Automotive grade with suffix "Q".)

TO-252-2L

1.BASE

2.COLLECTOR

3.EMITTER



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	-3	A
R_{JA}	Thermal Resistance-Junction to Air	100	℃/W
P_C	Collector Power Dissipation	1.25	W
T_J,T_{stg}	Operation Junction and Storage Temperature Range	-55-150	℃

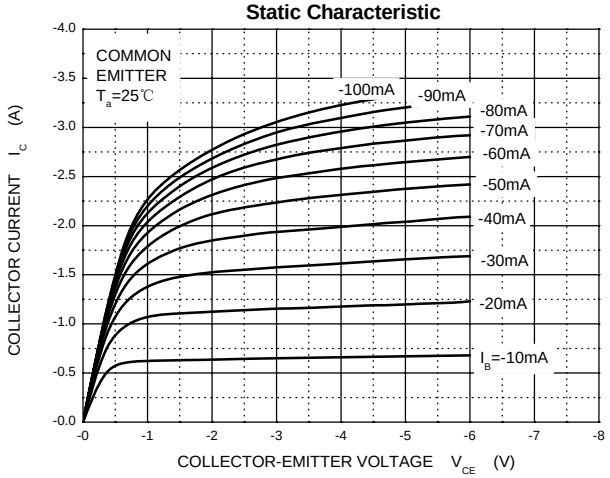
ELECTRICAL CHARACTERISTICS (T_a=25℃ unless otherwise specified)

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_{CES}	V_{CE}=-100V, V_{EB}=0		-20	μA
Collector cut-off current	I_{CEO}	V_{CE}= -60V, I_B= 0		-50	μA
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=-1A	25		
	$h_{FE(2)}$	V_{CE}=-4 V, I_C=-3A	15	75	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=-3A, I_B=-0.375A		-1.2	V
Base-emitter voltage	$V_{BE(on)}$	V_{CE}= -4V, I_C=-3A		-1.8	V
Transition frequency	f_T	V_{CE}=-10V , I_C=-0.5A,f_T=1KHz	3		MH_Z

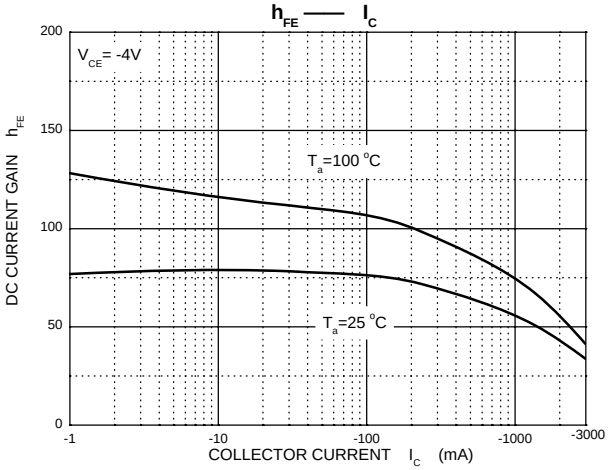
* Pulse Test: PW≤300μs, Duty Cycle≤2%.

Typical Characteristics

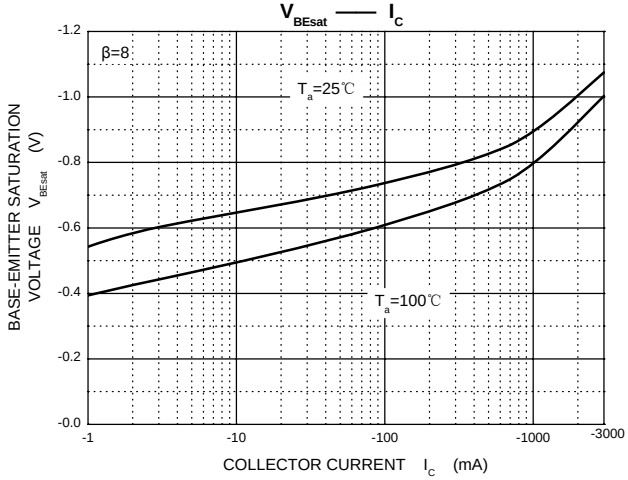
Static Characteristic



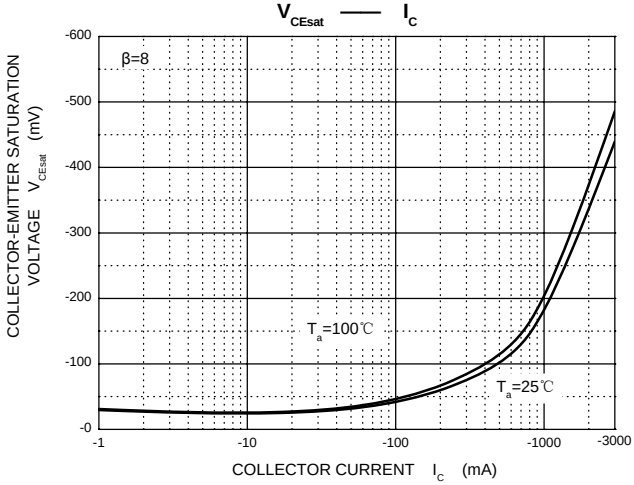
h_{FE} —— I_C



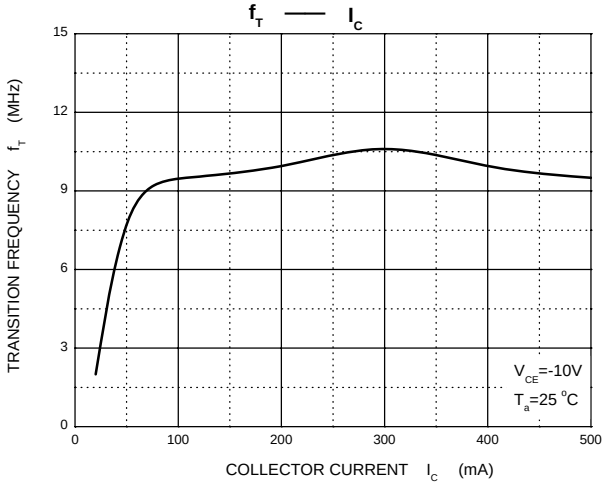
V_{BEsat} —— I_C



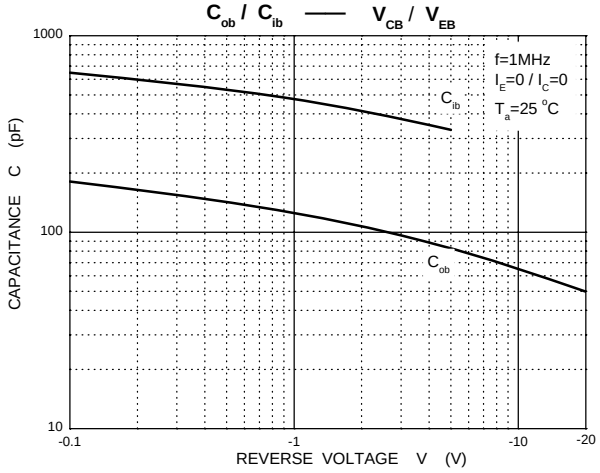
V_{CEsat} —— I_C



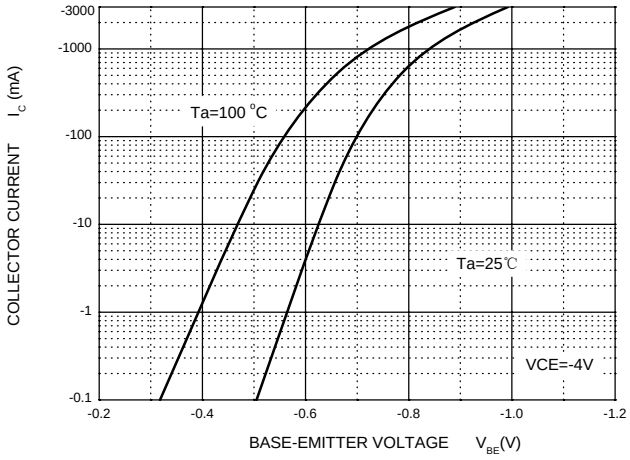
f_T —— I_C



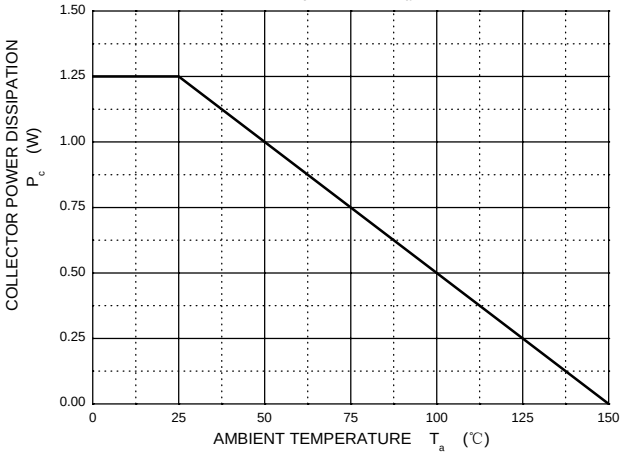
C_{ob} / C_{ib} —— V_{CB} / V_{EB}



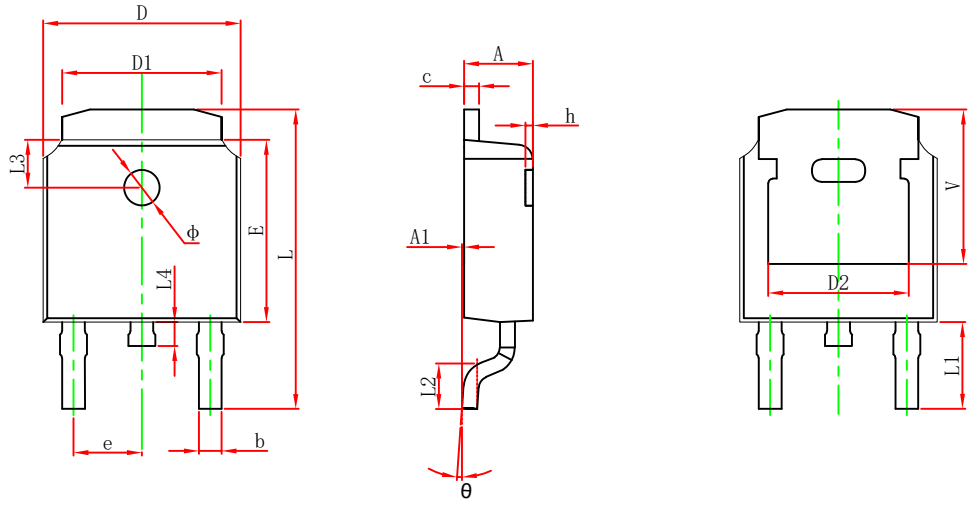
I_C —— V_{BE}



P_c —— T_a

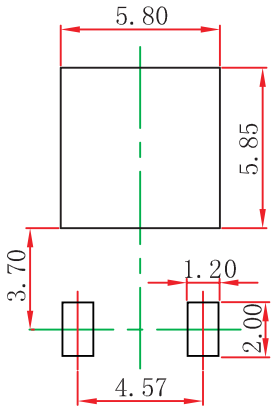


TO-252-2L Package Outline Dimensions



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:± 0.05mm.
3.The pad layout is for reference purposes only.