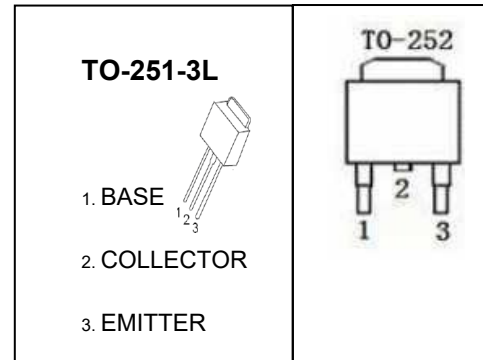


## Plastic-Encapsulate Transistors

### HS42C 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)
- Electrically Similar to Popular HS41 and HS42 Series
- Monolithic Construction With Built-in Base-Emitter Resistors



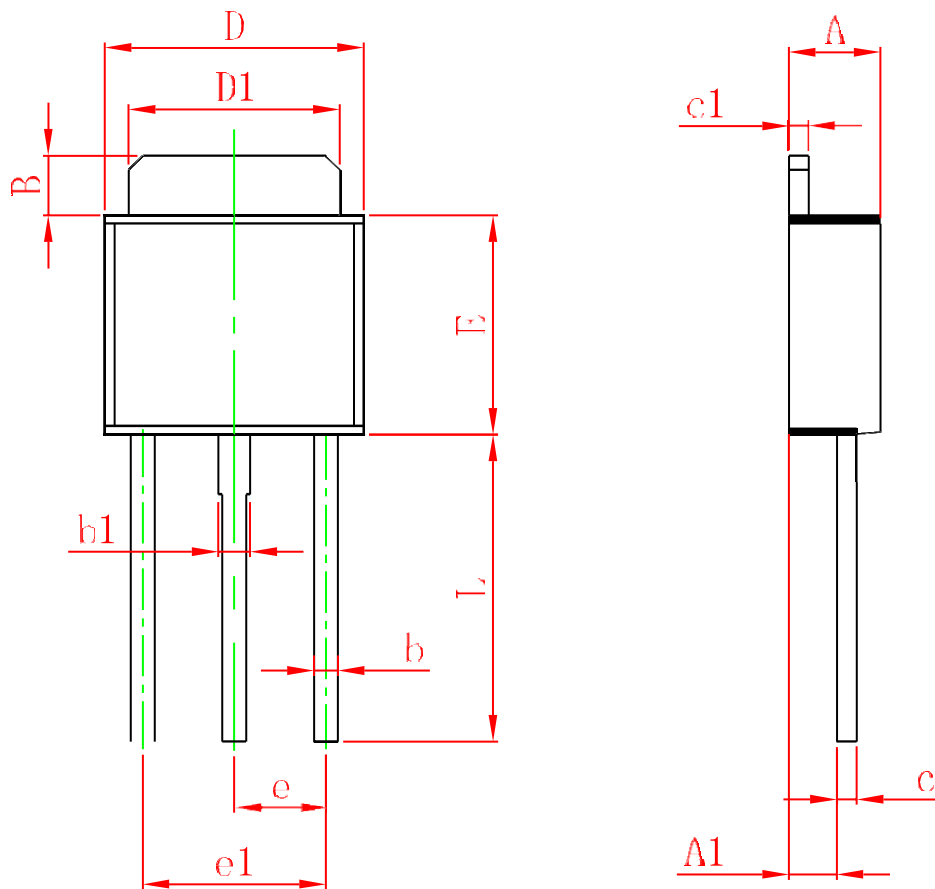
#### MAXIMUM RATINGS ( $T_a=25^{\circ}\text{C}$ unless otherwise noted)

Symbol	Parameter	Value	Unit
$V_{\text{CBO}}$	Collector-Base Voltage	-100	V
$V_{\text{CEO}}$	Collector-Emitter Voltage	-100	V
$V_{\text{EBO}}$	Emitter-Base Voltage	-5	V
$I_{\text{C}}$	Collector Current -Continuous	-6	A
$P_{\text{C}}$	Collector Power Dissipation	1.25	W
$T_{\text{J}}$	Junction Temperature	150	$^{\circ}\text{C}$
$T_{\text{stg}}$	Storage Temperature	-65-150	$^{\circ}\text{C}$

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

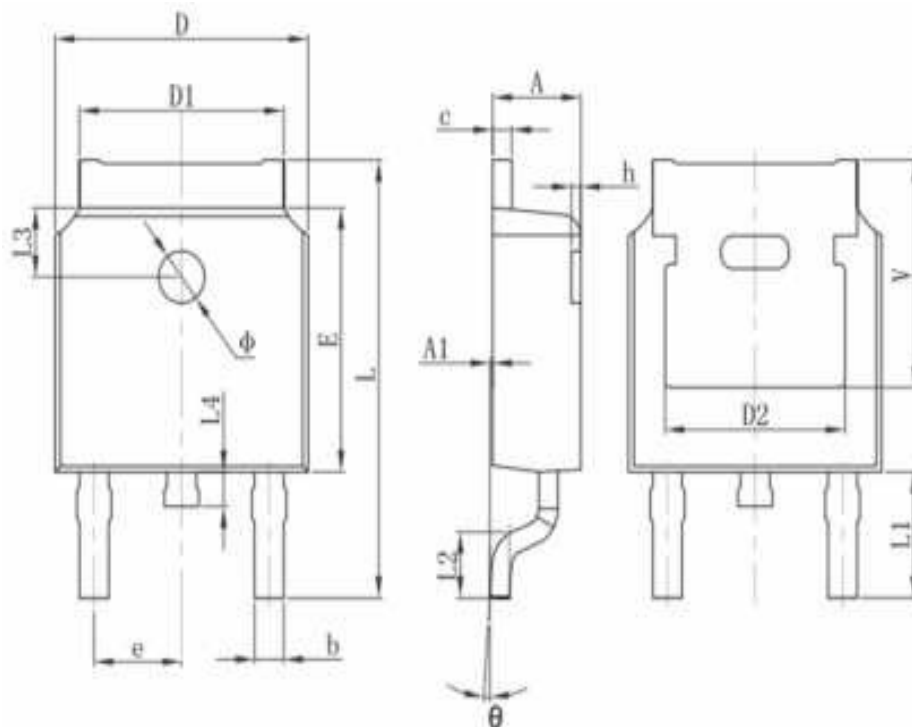
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(\text{BR})\text{CBO}}$	$I_{\text{C}}=-100\mu\text{A}, I_{\text{E}}=0$	-100			V
Collector-emitter breakdown voltage	$V_{\text{CEO}(\text{sus})}$	$I_{\text{C}}=-30\text{mA}, I_{\text{B}}=0$	-100			V
Emitter-base breakdown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

# 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

# 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	0.660	0.860	0.026	0.034
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	9.800	10.400	0.386	0.409
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
phi	1.100	1.300	0.043	0.051
theta	0°	8°	0°	8°
h	0.000	0.300	0.000	0.012
V	5.350 REF.		0.211 REF.	