

TO-126C Plastic-Encapsulate Transistors

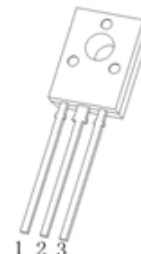
2SC3421 TRANSISTOR (NPN)

FEATURES

- Complementary to 2SA1358
- Suitable for Driver of 60 to 80 Watts Audio Amplifier
- High Breakdown Voltage

TO- 126C

1. EMITTER
2. COLLECTOR
3. BASE



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

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	120	V
V_{CEO}	Collector-Emitter Voltage	120	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current (DC)	1	A
I_B	Base Current	0.1	A
P_C	Collector Dissipation ($T_a = 25^{\circ}\text{C}$)	1.25	W
	Collector Dissipation ($T_c = 25^{\circ}\text{C}$)	10	W
T_J	Junction Temperature	150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature Range	-55-150	$^{\circ}\text{C}$

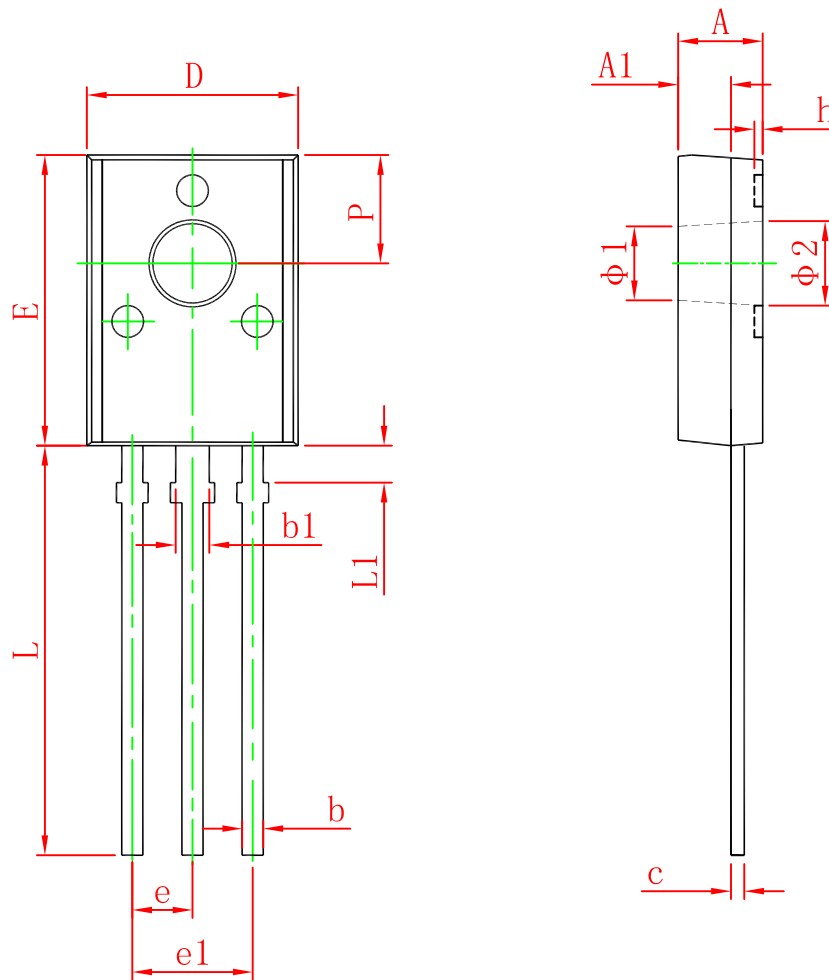
ELECTRICAL CHARACTERISTICS ($T_a=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector cut-off current	I_{CBO}	$V_{CB}=120\text{V}, I_E=0$			0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=5\text{V}, I_C=0$			0.1	μA
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=10\text{mA}, I_B=0$	120			V
DC current gain	h_{FE}	$V_{CE}=5\text{V}, I_C=100\text{mA}$	80		240	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=0.5\text{A}, I_B=50\text{mA}$			1	V
Base-emitter voltage	V_{BE}	$V_{CE}=5\text{V}, I_C=500\text{mA}$			1	V
Transition frequency	f_T	$V_{CE}=5\text{V}, I_C=100\text{mA}$		120		MHz
Collector output capacitance	C_{ob}	$V_{CB}=10\text{V}, I_E=0, f=1\text{MHz}$		15		pF

CLASSIFICATION OF h_{FE}

Rank	O	Y
Range	80-160	120-240

TO-126C Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	3.000	3.400	0.118	0.134
A1	1.800	2.200	0.071	0.087
b	0.660	0.860	0.026	0.034
b1	1.170	1.370	0.046	0.054
c	0.450	0.600	0.018	0.024
D	7.800	8.200	0.307	0.323
E	10.800	11.200	0.425	0.441
e	2.280 TYP.		0.090 TYP.	
e1	4.460	4.660	0.176	0.183
L	15.300	15.700	0.602	0.618
L1	1.300	1.500	0.051	0.059
P	4.040	4.240	0.159	0.167
$\phi 1$	2.700	2.900	0.106	0.114
$\phi 2$	3.100	3.300	0.122	0.130