



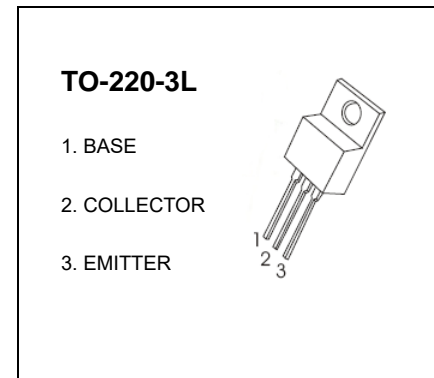
DONGGUAN NANJING ELECTRONICS LTD.,

TO-220-3L Plastic-Encapsulate Transistors

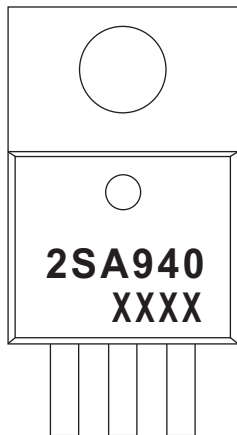
2SA940 TRANSISTOR (PNP)

FEATURES

- Wide Safe Operating Area.
- Complementary to 2SC2703

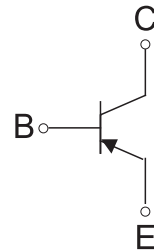


MARKING



2SA940=Device code
XXXX=Code

Equivalent Circuit



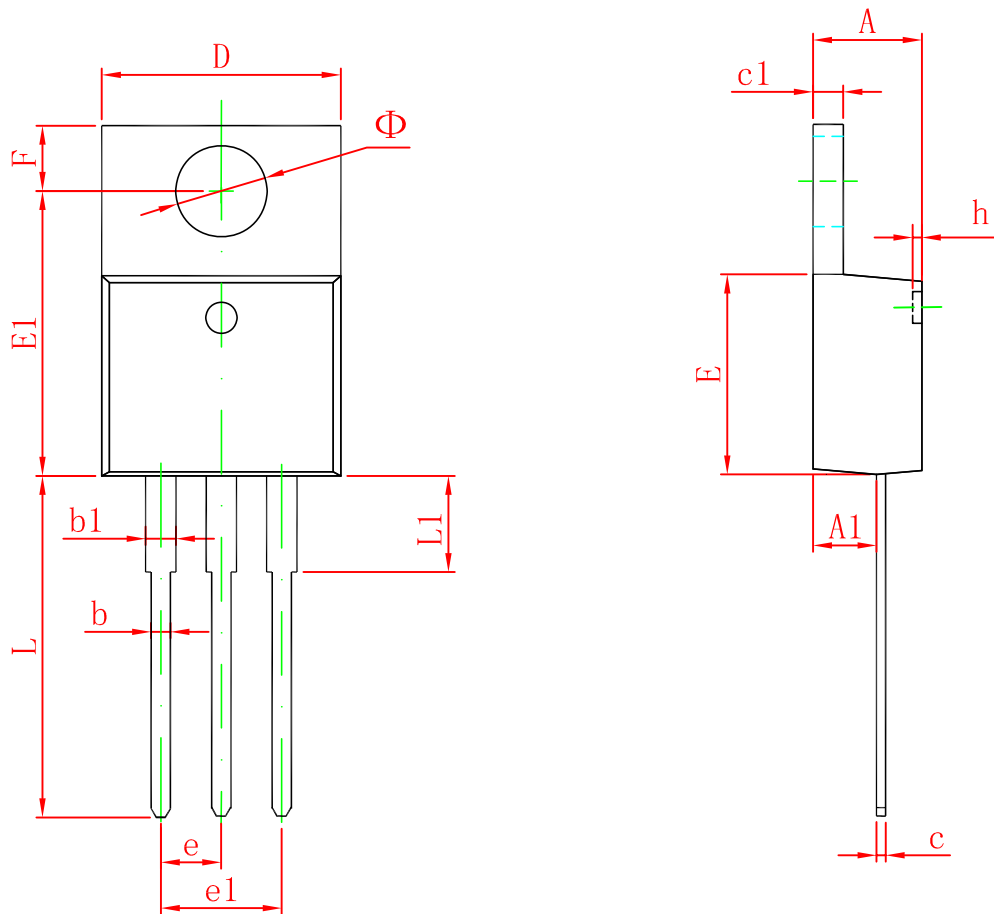
MAXIMUM RATINGS ($T_a=25^\circ\text{C}$ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CB0}	Collector-Base Voltage	-150	V
V_{CE0}	Collector-Emitter Voltage	-150	V
V_{EB0}	Emitter-Base Voltage	-5	V
I_C	Collector Current -Continuous	-1.5	A
P_C	Collector Power Dissipation	1.5	W
T_J, T_{stg}	Operation Junction and Storage Temperature Range	-55-150	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS (T_a=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V _{(BR)CBO}	I _C = -100μA, I _E = 0	-150			V
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C = -1mA, I _B = 0	-150			V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E = -100μA, I _C = 0	-5			V
Collector cut-off current	I _{CBO}	V _{CB} = -120V, I _E = 0			-10	μA
Emitter cut-off current	I _{EBO}	V _{EB} = -5V, I _C = 0			-10	μA
DC current gain	h _{FE}	V _{CE} = -10V, I _C = -0.5A	40		140	
Collector-emitter saturation voltage	V _{CE(sat)}	I _C = -0.5A, I _B = -50mA			-1.5	V
Base-emitter voltage	V _{BE}	V _{CE} = -10V, I _C = -0.5A	-0.6		-0.85	V
Transition frequency	f _T	V _{CE} = -10V, I _C = -0.5A		4		MHz
Collector output capacitance	C _{ob}	V _{CB} = -10V, I _E = 0, f = 1MHz		55		pF

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