



TO-92L Plastic-Encapsulate Transistors

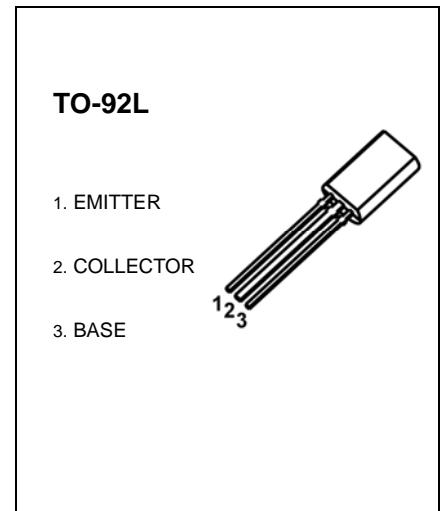
TPT5609 TRANSISTOR (NPN)

FEATURES

- Excellent Linearity of Current Gain
- Low saturation voltage
- Complementary to TPT5610

MAXIMUM RATINGS (T_a=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V _{CBO}	Collector- Base Voltage	25	V
V _{CEO}	Collector-Emitter Voltage	20	V
V _{EBO}	Emitter-Base Voltage	5	V
I _C	Collector Current -Continuous	1	A
P _C	Collector Power Dissipation	0.75	W
T _J	Junction Temperature	150	°C
T _{stg}	Storage Temperature	-55-150	°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 = 10μA, I _E = 0	25			V
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C = 1mA, I _B = 0	20			V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E = 10μA, I _C = 0	5			V
Collector cut-off current	I _{CBO}	V _{CB} = 20V, I _E = 0			1	μA
Emitter cut-off current	I _{EBO}	V _{EB} = 5V, I _C = 0			1	μA
DC current gain	h _{FE}	V _{CE} = 2V, I _C = 500mA	60		240	
Collector-emitter saturation voltage	V _{CE(sat)}	I _C = 800mA, I _B = 80mA			0.5	V
Base-emitter voltage	V _{BE}	V _{CE} = 2V, I _C = 500mA			1	V
Transition frequency	f _T	V _{CE} = 2V, I _C = 500mA		190		MHz
Collector output capacitance	C _{ob}	V _{CB} = 10V, I _E = 0, f = 1MHz		22		pF

CLASSIFICATION OF h_{FE}

Rank	A	B	C
Range	60-120	85-170	120-240