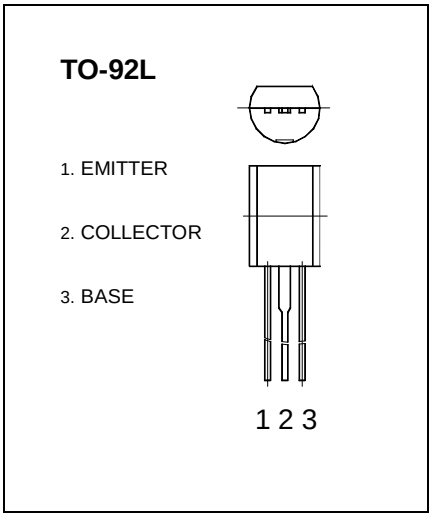
TO-92L Plastic-Encapsulate Transistors

HIT5609 TRANSISTOR (NPN)



FEATURES

Power dissipation

$P_{CM:}$ 1 W (Tamb=25℃)

Collector current

$I_{CM:}$ 1 A

Collector-base voltage

$V_{(BR)CBO}$: 25 V

Operating and storage junction temperature range

T_J, T_{stg}: -55℃ to +150℃

ELECTRICAL CHARACTERISTICS (Tamb=25℃ unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	Ic=10μA, I_E=0	25			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	Ic=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