

## TPT5609 TRANSISTOR (NPN)

### FEATURES

Power dissipation

$P_{CM}$ : 1 W ( $T_{amb}=25^{\circ}C$ )

Collector current

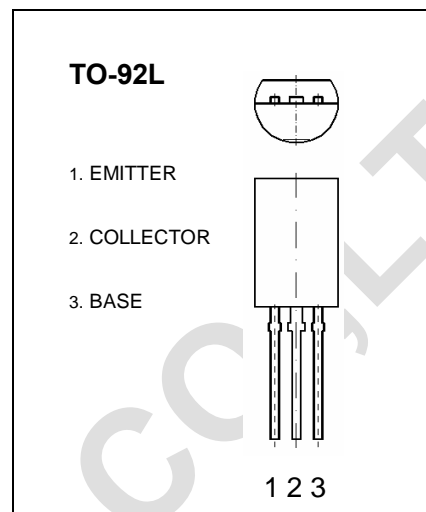
$I_{CM}$ : 1 A

Collector-base voltage

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

Operating and storage junction temperature range

$T_J, T_{stg}$ :  $-55^{\circ}C$  to  $+150^{\circ}C$



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

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=10\mu A, I_E=0$	25			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=1mA, I_B=0$	20			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=10\mu A, I_C=0$	5			V
Collector cut-off current	$I_{CBO}$	$V_{CB}=20V, I_E=0$			1	$\mu A$
Emitter cut-off current	$I_{EBO}$	$V_{EB}=5V, I_C=0$			1	$\mu A$
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