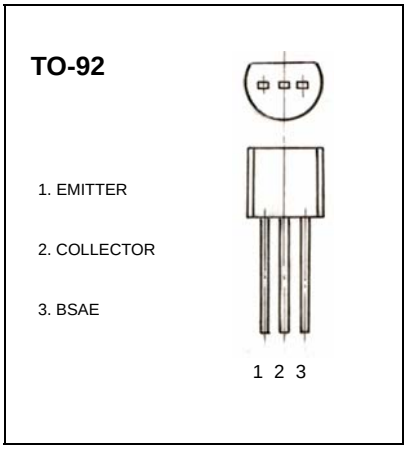
Transys Electronics LIMITED

TO-92 Plastic-Encapsulated Transistors

2SC1959 TRANSISTOR (NPN)



FEATURE

Power dissipation

P_{CM}: 0.5 W (Tamb=25℃)

Collector current

I_{CM}: 0.5 A

Collector-base voltage

$V_{(BR)CBO}$: 35 V

Operating and storage junction temperature range

T_{stg}: -55℃ to +150℃

T_J: 150℃

ELECTRICAL CHARACTERISTICS (Tamb=25℃ unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V(BR)_{CBO}$	Ic= 100μA , I_E=0	35			V
Collector-emitter breakdown voltage	$V(BR)_{CEO}$	I_C= 1 mA , I_B=0	30			V
Emitter-base breakdown voltage	$V(BR)_{EBO}$	I_E= 100μA, I_C=0	5			V
Collector cut-off current	I_{CBO}	V_{CB}= 35V , I_E=0			0.1	μA
Emitter cut-off current	I_{EBO}	V_{EB}= 5 V , I_C=0			0.1	μA
DC current gain	$h_{FE\ (1)}$	V_{CE}=1 V, I_C= 100mA	70		400	
	$h_{FE\ (2)}$	V_{CE}=6 V, I_C= 400mA	25			
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C= 100 mA, I_B= 10 mA			0.25	V
Base-emitter voltage	V_{BE}	V_{CE}= 1V, I_C= 100 mA			1.0	V
Transition frequency	f_T	V_{CE}= 12 V, I_C= 2mA	200			MHz

CLASSIFICATION OF h_{FE}

Rank		O	Y	GR
Range	$h_{FE\ (1)}$	70-140	120-240	200-400
	$h_{FE\ (2)}$	25(min)	40(min)	