



TO-92 Plastic-Encapsulated Transistors

2SC1959 TRANSISTOR (NPN)

FEATURE

Power dissipation

P_{CM} : 0.5 W ($T_{amb}=25^{\circ}C$)

Collector current

I_{CM} : 0.5 A

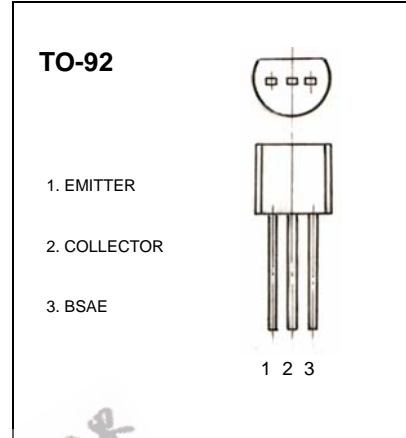
Collector-base voltage

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

Operating and storage junction temperature range

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

T_j : $150^{\circ}C$



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

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