



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

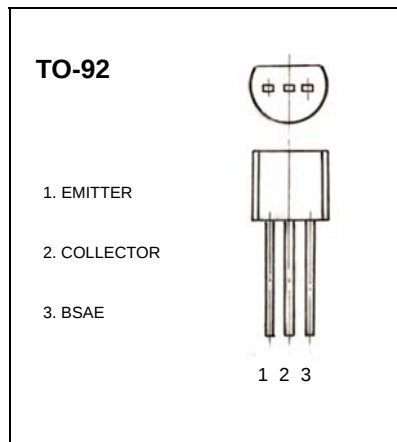
Collector-base voltage

$V_{(BR)CBO}$: 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	$V_{(BR)CEO}$	$I_C = 1$ 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	$V_{CE(sat)}$	$I_C = 100$ 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	$V_{CE} = 12V$, $I_C = 2mA$	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)	