



TO-92 Plastic-Encapsulated Transistors

2SC1674 TRANSISTOR (NPN)

FEATURE

Power dissipation

P_{CM} : 0.25 W ($T_{amb}=25^{\circ}C$)

Collector current

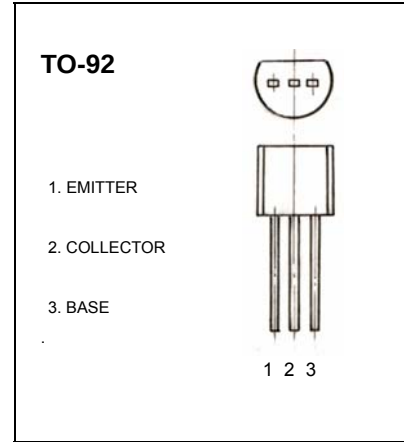
I_{CM} : 0.02 A

Collector-base voltage

$V_{(BR)CBO}$: 30 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	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = 100\mu A, I_E = 0$	30		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = 1\text{ mA}, I_B = 0$	20		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = 100\mu A, I_C = 0$	4		V
Collector cut-off current	I_{CBO}	$V_{CB} = 30V, I_E = 0$		0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = 3V, I_C = 0$		0.1	μA
DC current gain	h_{FE}	$V_{CE} = 6V, I_C = 1\text{ mA}$	40	180	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 10\text{ mA}, I_B = 1\text{ mA}$		0.3	V
Base-emitter voltage	$V_{BE(ON)}$	$V_{CE} = 6V, I_C = 1\text{ mA}$		0.72	V
Transition frequency	f_T	$V_{CE} = 6V, I_C = 1\text{ mA}$	400		MHz
Collector output capacitance	C_{ob}	$V_{CE} = 6V, I_E = 0, f = 1\text{ MHz}$		1.5	pF
Noise figure	NF	$V_{CE} = 6V, I_C = 1\text{ mA}, f = 100\text{ MHz}, R_S = 50\Omega$		5	dB
Power gain	G_P	$V_{CE} = 6V, I_C = 1\text{ mA}, f = 100\text{ MHz}$	18		dB

CLASSIFICATION OF $h_{FE(1)}$

Rank	Y	GR	BL
Range	40-80	60-120	90-180