东莞市华远电子有限公司
DONG GUAN SHI HUA YUAN ELECTRON CO.,LTD.
TEL：86-769-5335378 86-769-5305266 FEX：86-769-5316189

TO-92 Plastic-Encapsulate Transistors

2SC1674 TRANSISTOR（NPN）

TO—92

1.EMITTER
2 COLLECTOR
3. BASE

1 2 3

FEATURE

Power dissipation

P_{CM} : 0. 25 W（Tamb=25℃）

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℃ to +150℃

ELECTRICAL CHARACTERISTICS（Tamb=25℃ unless otherwise specified）

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	Ic= 100μA， I_E=0	30		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C= 1 mA, I_B=0	20		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E= 100μA， 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}=6 V, I_C= 1mA	40	240	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=10 mA, I_B= 1 mA		0.3	V
Base-emitter voltage	V_{BE}(ON)	V_{CE}=6 V, I_C= 1mA		0.72	V
Transition frequency	f_T	V_{CE}=6 V, I_C= 1mA	400		MHz
Collector output capacitance	C_{ob}	V_{CE}=6V， I_E=0，f=1MHz		1.5	pF
Noise figure	NF	V_{CE}=6V,I_C=1mA,f=100MHz,R_S=50Ω		5	dB
Power gain	G_P	V_{CE}=6V,I_C=1mA,f=100MHz	18		dB

CLASSIFICATION OF $h_{FE(1)}$

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

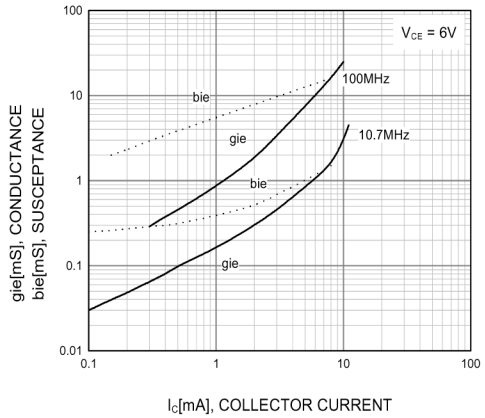


Figure 7. Input Admittance (yie) vs. Collector Current

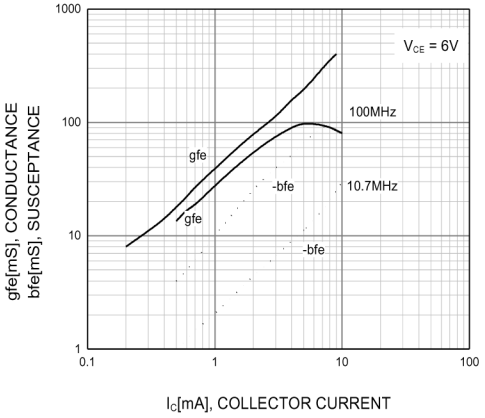


Figure 8. Forward Transfer Admittance (yfe) vs. Collector Current

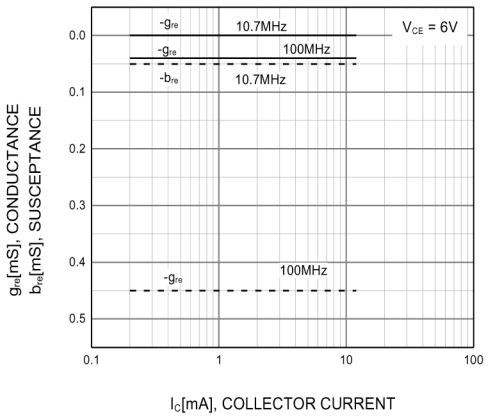


Figure 9. Reverse Transfer Admittance (yre) vs. Collector Current

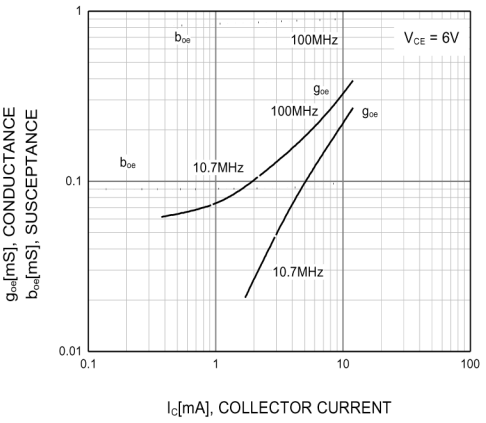


Figure 10. Output Admittance (yoe) vs. Collector Current

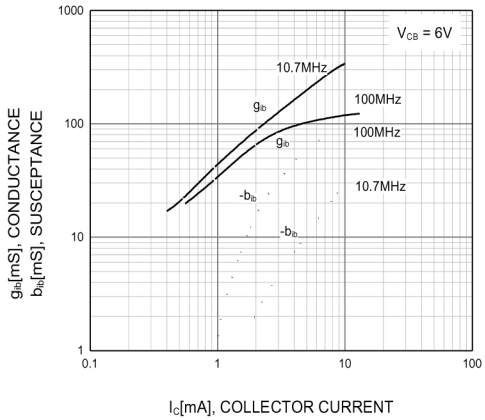


Figure 11. Input Admittance (yib) vs. Collector Current

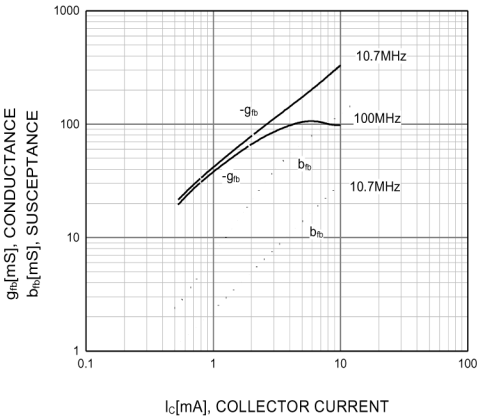


Figure 12. Forward Transfer Admittance (yfb) vs. Collector Current

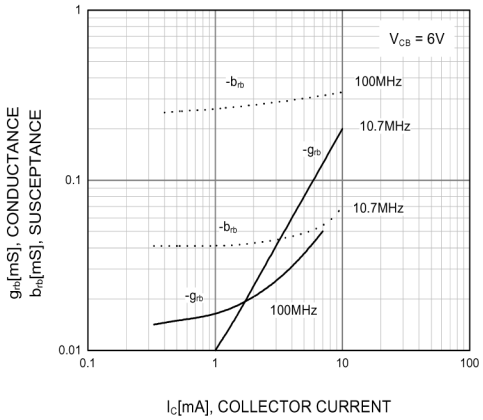


Figure 13. Reverse Transfer Admittance (yrb) vs. Collector Current

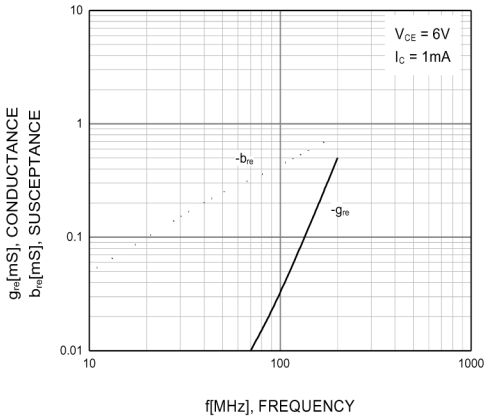


Figure 14. Reverse Transfer Admittance (yre) vs. Frequency

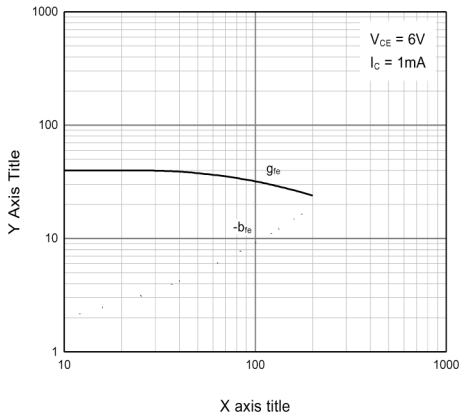


Figure 15. Forward Transfer Admittance (yfe) vs. Frequency

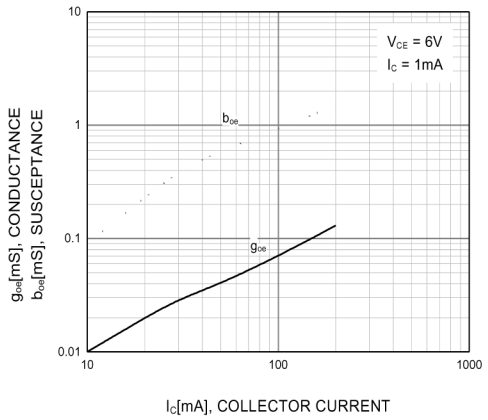


Figure 16. Output Admittance (yoe) vs. Frequency

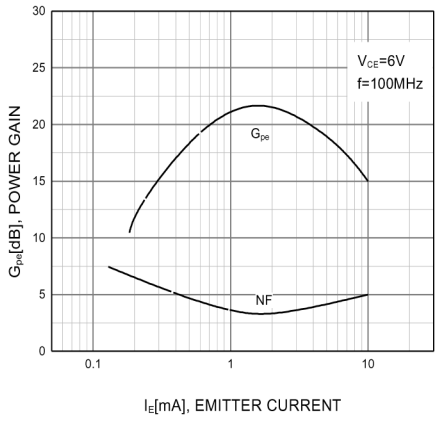


Figure 17. Power Gain and Noise Figure vs. Emitter Current

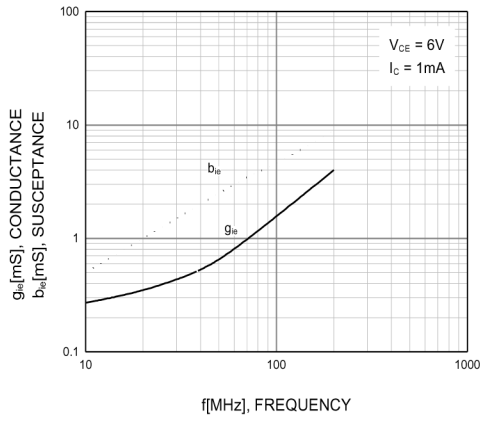
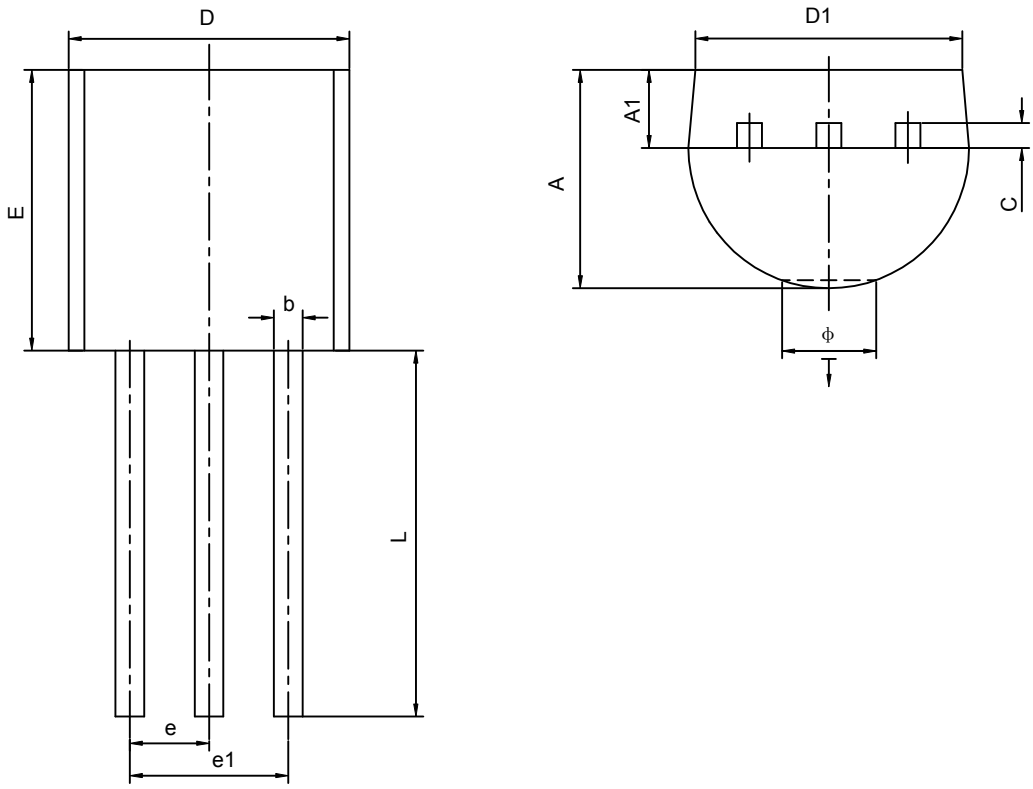


Figure 18. Input Admittance (yie) vs. Frequency

TO-92 PACKAGE OUTLINE DIMENSIONS



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	3.300	3.700	0.130	0.146
A1	1.100	1.400	0.043	0.055
b	0.380	0.550	0.015	0.022
c	0.360	0.510	0.014	0.020
D	4.400	4.700	0.173	0.185
D1	3.430		0.135	
E	4.300	4.700	0.169	0.185
e	1.270TYP		0.050TYP	
e1	2.440	2.640	0.096	0.104
L	14.100	14.500	0.555	0.571
Ö		1.600		0.063
⊤	0.000	0.380	0.000	0.015