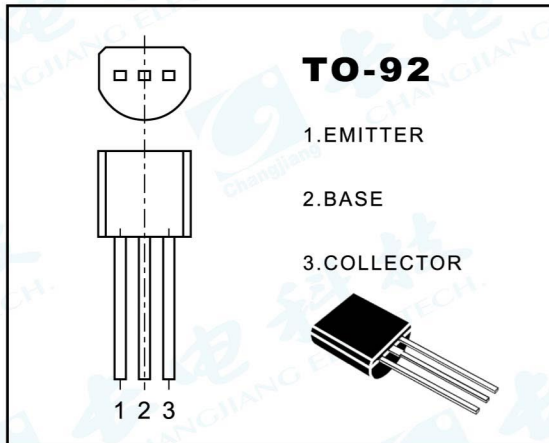


S9014 TRANSISTOR(NPN)



FEATURES

Power dissipation

P_{CM} : 0.4W ($T_{amb}=25^{\circ}C$)

Collector current

I_{CM} : 0.1 A

Collector-base voltage

$V_{(BR)CBO}$: 50 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)

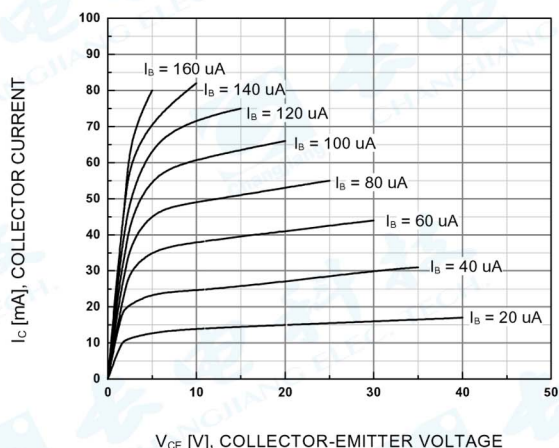
Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = 100 \mu A, I_E = 0$	50		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = 0.1 mA, I_B = 0$	45		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = 100 \mu A, I_C = 0$	5		V
Collector cut-off current	I_{CBO}	$V_{CB} = 50 V, I_E = 0$		0.1	μA
Collector cut-off current	I_{CEO}	$V_{CE} = 35 V, I_B = 0$		0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = 3 V, I_C = 0$		0.1	μA
DC current gain	h_{FE}	$V_{CE} = 5 V, I_C = 1 mA$	60	1000	
Collector-emitter saturation voltage	V_{CEsat}	$I_C = 100 mA, I_B = 5 mA$		0.3	V
Base-emitter saturation voltage	V_{BEsat}	$I_C = 100 mA, I_B = 5 mA$		1	V
Transition frequency	f_T	$V_{CE} = 5 V, I_C = 10 mA$ $f = 30 MHz$	150		MHz

CLASSIFICATION OF h_{FE}

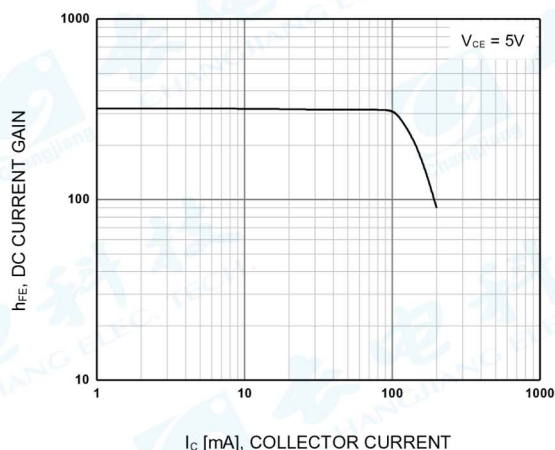
Rank	A	B	C	D
Range	60-150	100-300	200-600	400-1000

Typical Characteristics

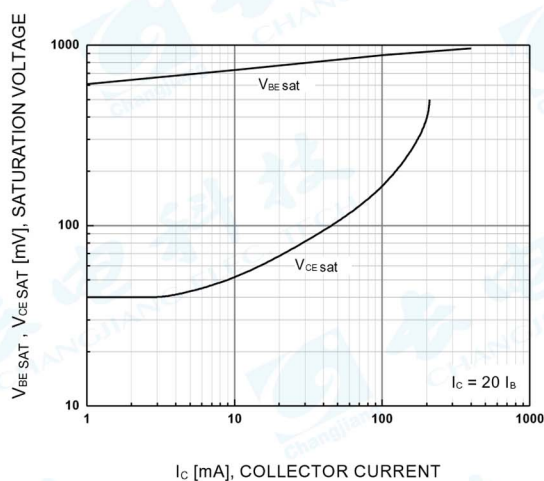
S9014



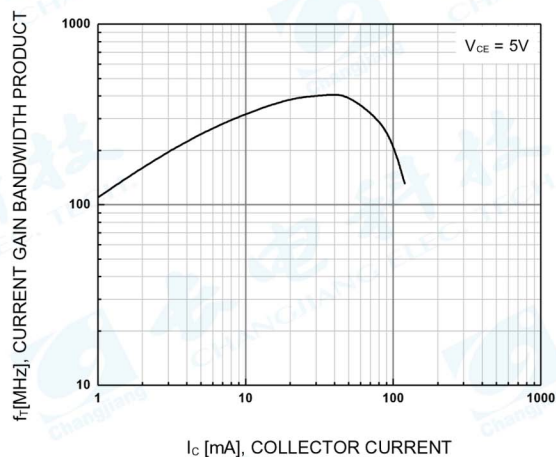
Static Characteristic



DC current Gain

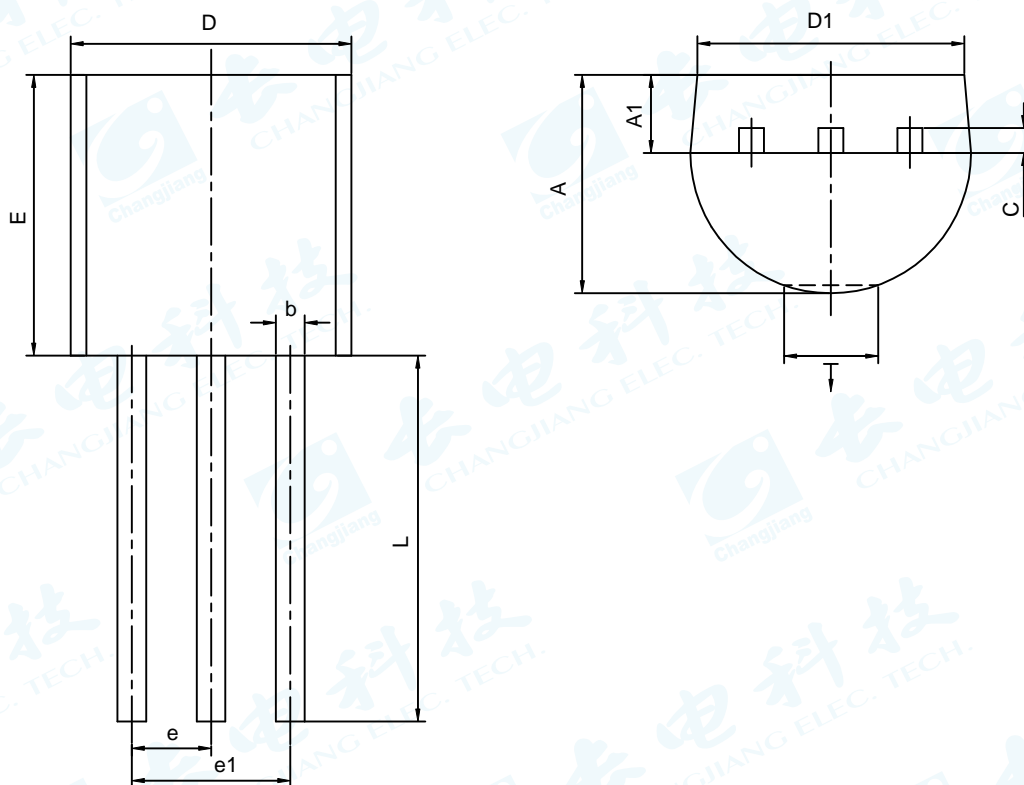


Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage



Current Gain Bandwidth Product

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