# Changjiang

# JIANGSU CHANGJIANG ELECTRONICS TECHNOLOGY CO.,LTD

# **TO-92 Plastic-Encapsulate Transistors**

\$9015 TRANSISTOR ( PNP )

#### **FEATURES**

Power dissipation

 $P_{CM}$ : 0.45 W (Tamb=25)

Collector current

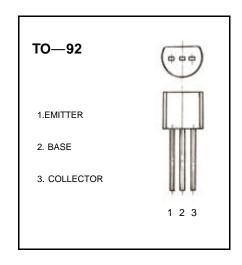
I<sub>CM</sub> : -0.1 A

Collector-base voltage

 $V_{(BR)CBO}$ : -50 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	TYP	MAX	UNIT
Collector-base breakdown voltage	V <sub>(BR)CBO</sub>	Ic= -100 μ A , I <sub>E</sub> =0	-50			V
Collector-emitter breakdown voltage	V <sub>(BR)CEO</sub>	Ic=-1mA , I <sub>B</sub> =0	-45			V
Emitter-base breakdown voltage	V <sub>(BR)EBO</sub>	I <sub>E</sub> =-100 μ A , I <sub>C</sub> =0	-5			V
Collector cut-off current	off current I <sub>CBO</sub> V <sub>CB</sub> =-50 V , I <sub>E</sub> =0				-0.05	μА
Emitter cut-off current	I <sub>EBO</sub>	V <sub>EB</sub> = -5V , I <sub>C</sub> =0			-0.05	μА
DC current gain	h <sub>FE(1)</sub>	V <sub>CE</sub> =-5V, I <sub>C</sub> = -1mA	60		1000	
Collector-emitter saturation voltage	V <sub>CE</sub> (sat) I <sub>C</sub> =-100 mA, I <sub>B</sub> = -10mA				-0.3	V
Base-emitter saturation voltage	V <sub>BE</sub> (sat)	I <sub>C</sub> =-100 mA, I <sub>B</sub> =-10mA			-1	V
Transition frequency	f⊤	V <sub>CE</sub> =-5V,	150			MHz

### CLASSIFICATION OF hFE(1)

Rank	А	В	С	D
Range	60-150	100-300	200-600	400-1000

# **TO-92 PACKAGE OUTLINE DIMENSIONS**





Symbol	Dimensions I	n Millimeters	Dimensions In Inches		
	Min	Max	Min	Max	
Α	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	
С	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	
е	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	
$\overline{}$	0.000	0.380	0.000	0.015	