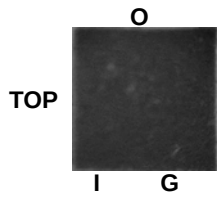
JIANGSU CHANGJIANG ELECTRONICS TECHNOLOGY CO., LTD

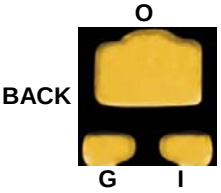
WBFBP-03B Plastic-Encapsulate Transistors

TSC114ENND03 TRANSISTOR

WBFBP-03B
(1.2×1.2×0.5)
unit: mm



1. IN
2. GND
3. OUT



DESCRIPTION
NPN Digital Transistor

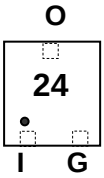
FEATURES
1) Built-in bias resistors enable the configuration of an inverter circuit without connecting external input resistors (see equivalent circuit)

2) The bias resistors consist of thin-film resistors with complete isolation to allow egative biasing of the input. They also have the advantage of almost completely eliminating parasitic effects

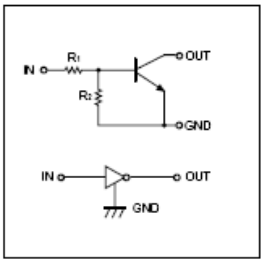
3) Only the on/off conditions need to be set for operation, making device design easy.

APPLICATION
NPN Digital Transistor
For portable equipment:(i.e. Mobile phone,MP3, MD,CD-ROM, DVD-ROM, Note book PC, etc.)

MARKING: 24



equivalent circuit



Absolute maximum ratings (Ta=25℃)

Parameter	Symbol	Limits	Unit
Supply voltage	V_{CC}	50	V
Input voltage	V_{IN}	-10~40	V
Output current	I_O	50	mA
	$I_{C(MAX)}$	100	
Power dissipation	Pd	150	mW
Junction temperature	Tj	150	℃
Storage temperature	Tstg	-55~150	℃

Electrical characteristics (Ta=25℃)

Parameter	Symbol	Min.	Typ	Max.	Unit	Conditions
Input voltage	$V_{I(off)}$	0.5			V	V_{CC}=5V ,I_O=100μA
	$V_{I(on)}$			3		V_O=0.3V ,I_O=10 mA
Output voltage	$V_{O(on)}$			0.3	V	I_O/I_I=10mA/0.5mA
Input current	I_I			0.88	mA	V_I=5V
Output current	$I_{O(off)}$			0.5	μA	V_{CC}=50V, V_I=0
DC current gain	G_I	30				V_O=5V ,I_O=5mA
Input resistance	R_1	7	10	13	KΩ	
Resistance ratio	R_2/R_1	0.8	1	1.2		
Transition frequency	f_T		250		MHz	V_{CE}=10V ,I_E=-5mA,f=100MHz