



WBFBP-03B Plastic-Encapsulate Transistors

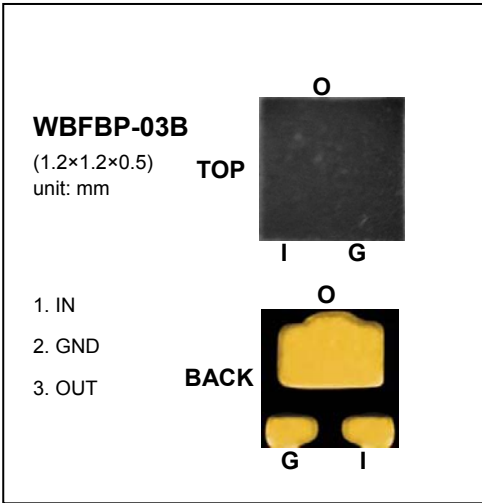
TSC144ENND03 TRANSISTOR

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 negative 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

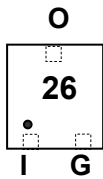


APPLICATION

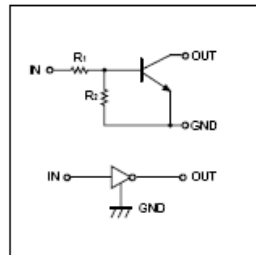
NPN Digital Transistor

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

MARKING: 26



equivalent circuit



Absolute maximum ratings(Ta=25°C)

Parameter	Symbol	Value	Unit
Supply voltage	V _{CC}	50	V
Input voltage	V _{IN}	-10~+40	V
Output current	I _O	100	mA
	I _{C(MAX)}	100	
Power dissipation	P _d	150	mW
Junction temperature	T _j	150	°C
Storage temperature	T _{stg}	-55~150	°C

Electrical characteristics (Ta=25°C)

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 =2mA
Output voltage	V _{O(on)}			0.3	V	I _O /I _I =10mA/0.5mA
Input current	I _I			0.18	mA	V _I =5V
Output current	I _{O(off)}			0.5	μA	V _{CC} =50V, V _I =0
DC current gain	G _I	68				V _O =5V ,I _O =5mA
Input resistance	R ₁	32.9	47	61.1	KΩ	
Resistance ratio	R ₂ /R ₁	0.8	1	1.2		
Transition frequency	f _T		250		MHz	V _O =10V ,I _O =5mA,f=100MHz