



WBFBP-05C Digital transistors (built-in resistors)

FUMG9N TRANSISTOR

DESCRIPTION

Epitaxial planar type NPN silicon transistor
(Built-in resistor type)

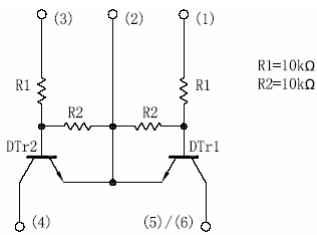
FEATURES

- Two DTC114E in a package.
- Mounting cost and area can be cut in half.

APPLICATION

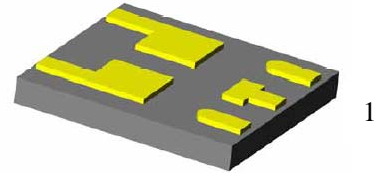
Dual Digital Transistors for Inverter Drive
For portable equipment:(i.e. Mobile phone,MP3, MD,CD-ROM, DVD-ROM, Note book PC, etc.)

Equivalent circuit

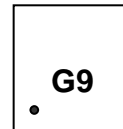


WBFBP-05C

(2×2×0.5)
unit: mm



MARKING:G9



Absolute maximum ratings(Ta=25°C)

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	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 =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

Typical Characteristics

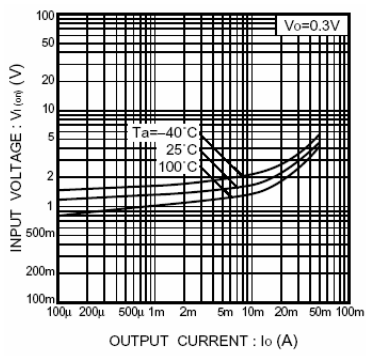


Fig.1 Input voltage vs. output current (ON characteristics)

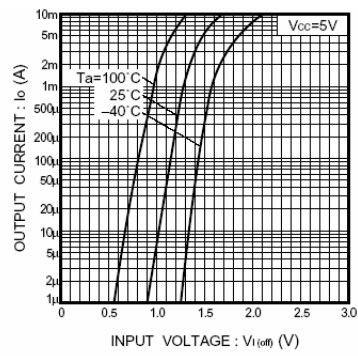


Fig.2 Output current vs. input voltage (OFF characteristics)

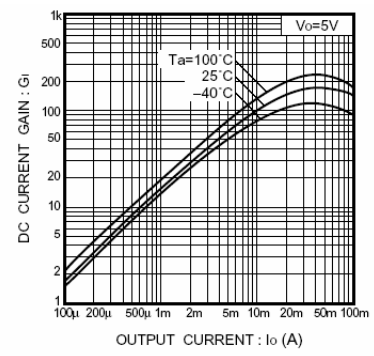


Fig.3 DC current gain vs. output current

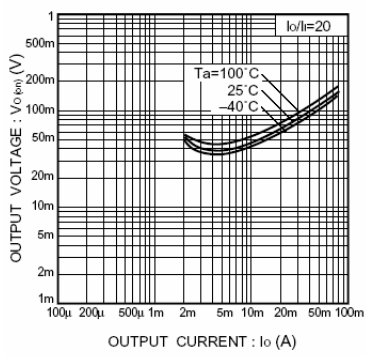
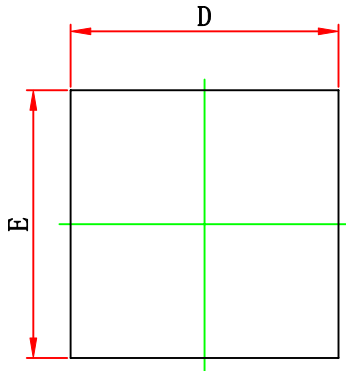


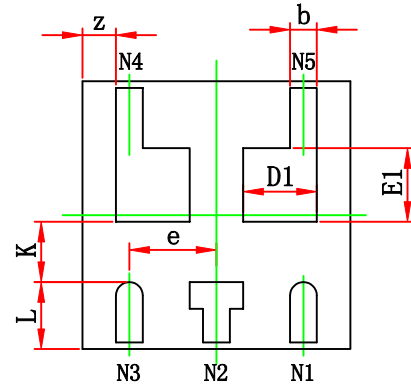
Fig.4 Output voltage vs. output current



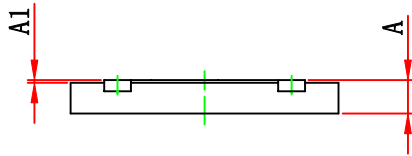
WBFBP-05C(2×2×0.5) PACKAGE OUTLINE DIMENSIONS



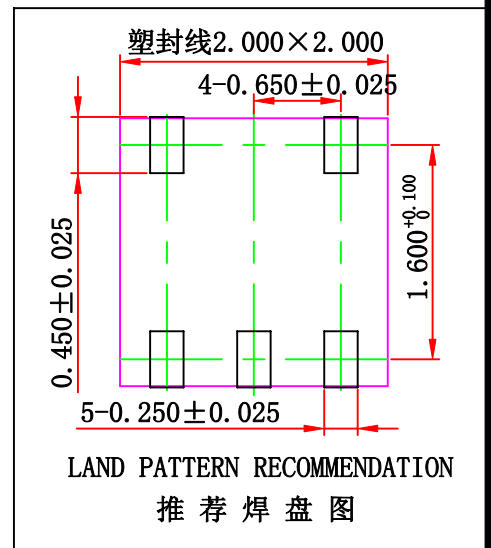
TOP VIEW



BOTTOM VIEW



SIDE VIEW



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.450	0.550	0.018	0.022
A1	0.000	0.100	0.000	0.004
b	0.150	0.250	0.006	0.010
D	1.900	2.100	0.075	0.083
E	1.900	2.100	0.075	0.083
D1	0.550 REF.		0.022 REF.	
E1	0.550 REF.		0.022 REF.	
e	0.650 TYP.		0.026 TYP.	
L	0.500 REF.		0.020 REF.	
k	0.450 REF.		0.018 REF.	
z	0.500 REF.		0.020 REF.	