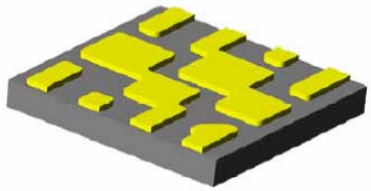
JIANGSU CHANGJIANG ELECTRONICS TECHNOLOGY CO., LTD

WBFBP-08A Plastic-Encapsulate Transistors

FMQT4292 TRANSISTOR

WBFBP-08A
(4×4×0.5)
unit: mm



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DESCRIPTION

PNP and NPN Epitaxial Silicon Transistor

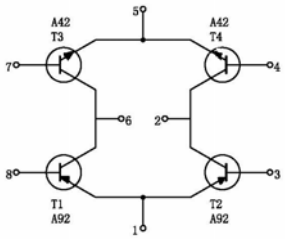
FEATURES

- Complementary Pair
- Tow A42-Type NPN, Tow A92-Type PNP
- Epitaxial Planar Die Construction

APPLICATION

IDEAL FOR LOW POWER AMPLIFICATION AND SWITCHING
For portable equipment:(i.e. Mobile phone,MP3, MD,CD-ROM, DVD-ROM, Note book PC, etc.)

MARKING: 4292



A42 MAXIMUM RATINGS* T_A=25℃ unless otherwise noted

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	310	V
V_{CEO}	Collector-Emitter Voltage	305	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current -Continuous	500	mA
T_J, T_{stg}	Junction and Storage Temperature	-55-150	℃
$R_{\theta JA}$	Thermal Resistance, junction to Ambient	200	℃/mW
$R_{\theta JC}$	Thermal Resistance, unction to Case	83.3	℃/mW

A92 MAXIMUM RATINGS* T_A=25℃ unless otherwise noted

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	-300	V
V_{CEO}	Collector-Emitter Voltage	-300	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current -Continuous	-500	mA
T_J, T_{stg}	Junction and Storage Temperature	-55-150	℃
$R_{\theta JA}$	Thermal Resistance, junction to Ambient	200	℃/mW
$R_{\theta JC}$	Thermal Resistance, unction to Case	83.3	℃/mW

A42 ELECTRICAL CHARACTERISTICS (Tamb=25℃ unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	Ic= 100μA, I_E=0	310		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	Ic= 1 mA, I_B=0	305		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E= 100μA, I_C=0	5		V
Collector cut-off current	I_{CBO}	V_{CB}=200V, I_E=0		0.25	μA
Emitter cut-off current	I_{EBO}	V_{EB}= 5V, I_C=0		0.1	μA
DC current gain	$H_{FE(1)}$	V_{CE}= 10V, I_C= 1mA	60		
	$H_{FE(2)}$	V_{CE}= 10V, I_C=10mA	100	200	
	$H_{FE(3)}$	V_{CE}=10V, I_C=30mA	60		
Collector-emitter saturation voltage	V_{CE}(sat)	I_C=20 mA, I_B= 2mA		0.2	V
Base-emitter saturation voltage	V_{BE}(sat)	I_C= 20 mA, I_B=2mA		0.9	V
Transition frequency	f_T	V_{CE}= 20V, I_C= 10mA f=30MHz	50		MHz

A92 ELECTRICAL CHARACTERISTICS (Tamb=25℃ unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	Ic= -100μA, I_E=0	-300		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	Ic= -1mA, I_B=0	-300		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E= -100μA, I_C=0	-5		V
Collector cut-off current	I_{CBO}	V_{CB}=-200V, I_E=0		-0.25	μA
Emitter cut-off current	I_{EBO}	V_{EB}= -5V, I_C=0		-0.1	μA
DC current gain	$H_{FE(1)}$	V_{CE}= -10V, I_C= -1mA	60		
	$H_{FE(2)}$	V_{CE}= -10V, I_C=-10mA	100	200	
	$H_{FE(3)}$	V_{CE}= -10V, I_C=-30mA	60		
Collector-emitter saturation voltage	V_{CE}(sat)	I_C=-20 mA, I_B= -2mA		-0.2	V
Base-emitter saturation voltage	V_{BE}(sat)	I_C= -20 mA, I_B= -2mA		-0.9	V
Transition frequency	f_T	V_{CE}=-20V, I_C= -10mA f=30MHz	50		MHz

Typical Characteristics

A42

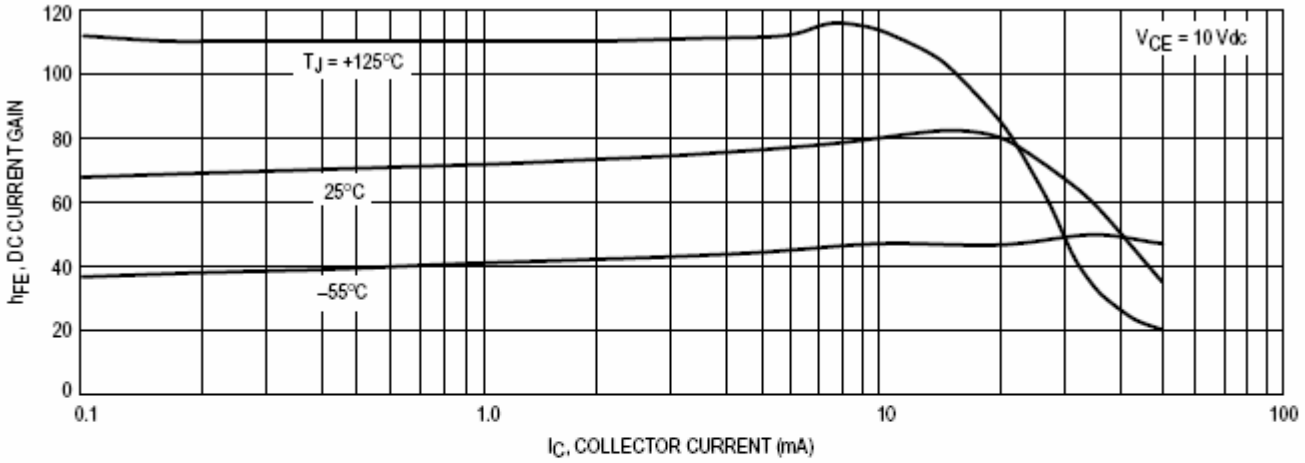


Figure 1. DC Current Gain

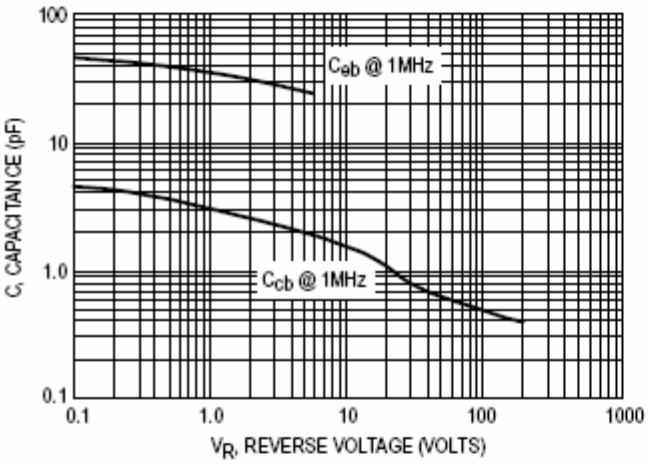


Figure 2. Capacitance

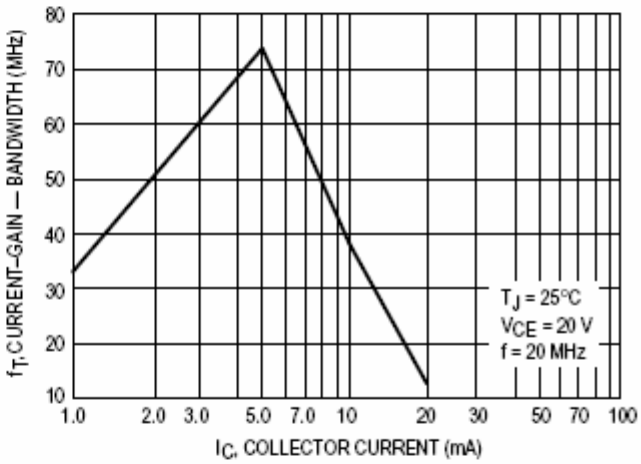
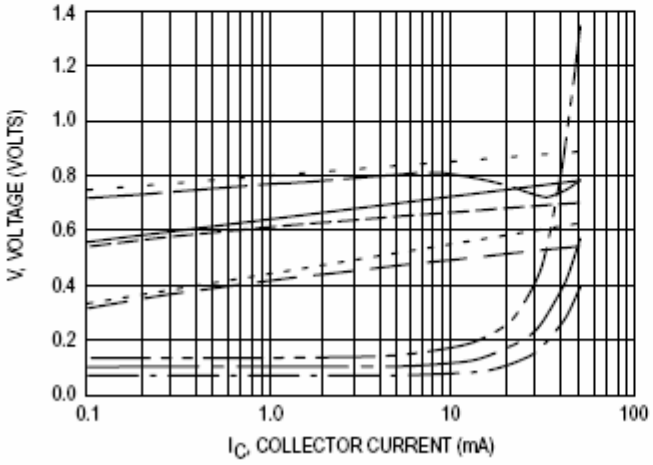


Figure 3. Current–Gain – Bandwidth



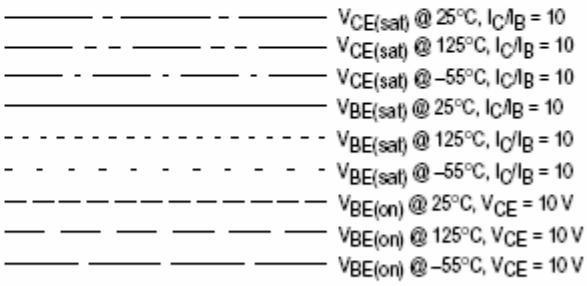


Figure 4. "ON" Voltages

A92

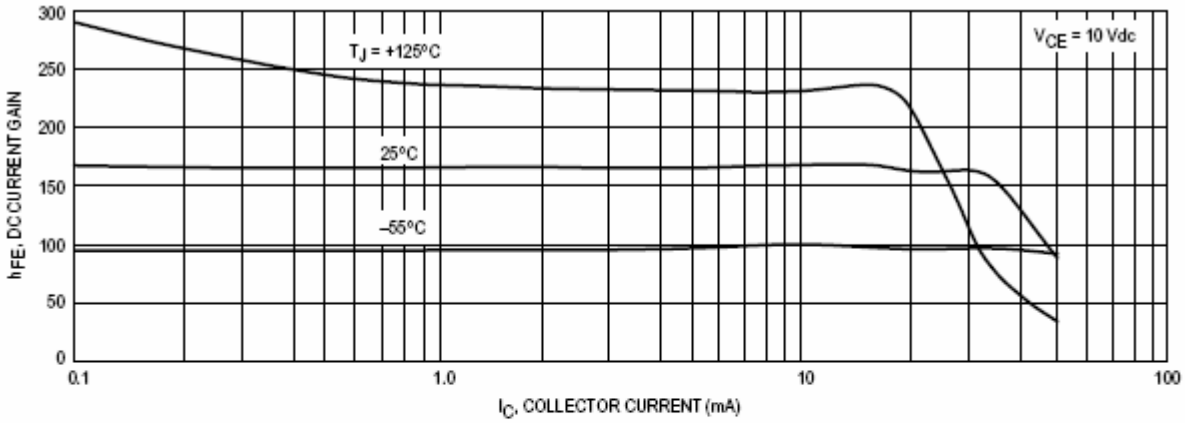


Figure 1. DC Current Gain

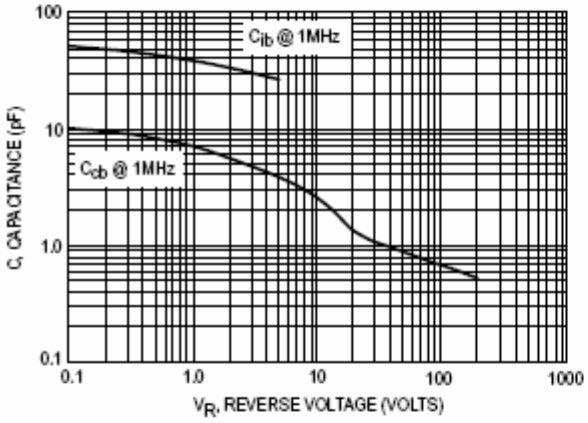


Figure 2. Capacitance

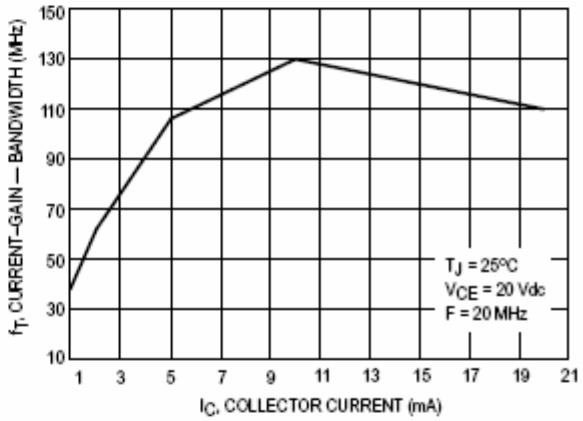


Figure 3. Current–Gain — Bandwidth

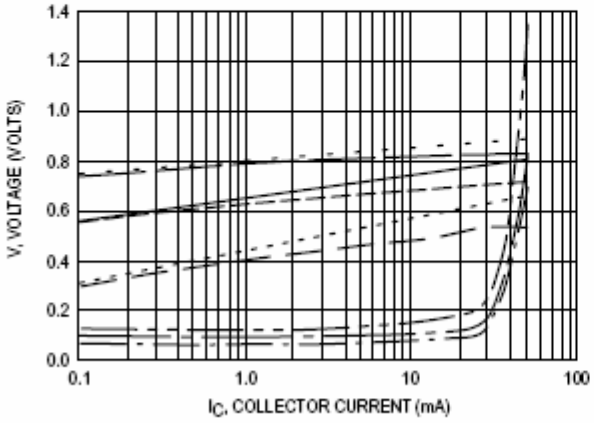
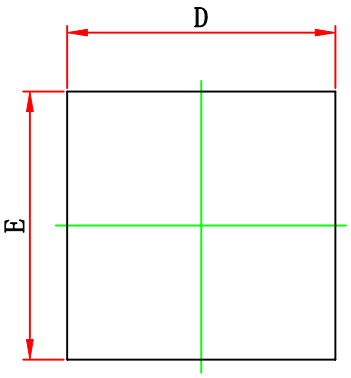
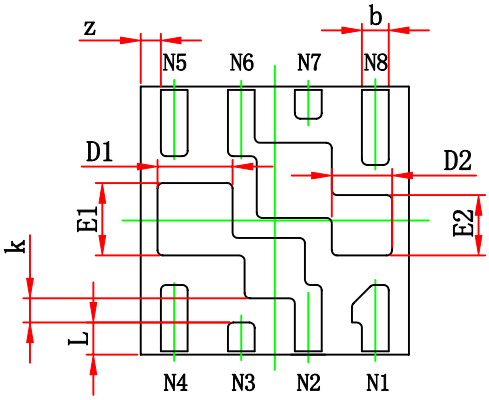


Figure 4. "ON" Voltages

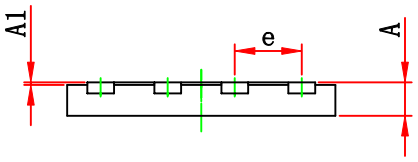
WBFBP-08A(4×4×0.5) PACKAGE OUTLINE DIMENSIONS



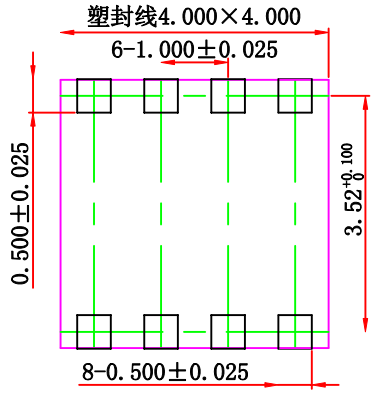
TOP VIEW



BOTTOM VIEW



SIDE VIEW



LAND PATTERN RECOMMENDATION
推 荐 焊 盘 图

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	0.350	0.450	0.014	0.018
D	3.900	4.100	0.154	0.161
E	3.900	4.100	0.154	0.161
D1	1.120 REF.		0.044 REF.	
E1	1.120 REF.		0.044 REF.	
D2	0.900 REF.		0.035 REF.	
E2	0.900 REF.		0.035 REF.	
e	1.000 TYP.		0.040 TYP.	
L	0.450 REF.		0.018 REF.	
k	0.300 REF.		0.012 REF.	
z	0.300 REF.		0.012 REF.	