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Please note: As part of the Fairchild Semiconductor integration, some of the Fairchild orderable part numbers will need to change in order to meet ON Semiconductor's system requirements. Since the ON Semiconductor product management systems do not have the ability to manage part nomenclature that utilizes an underscore (_), the underscore (_) in the Fairchild part numbers will be changed to a dash (-). This document may contain device numbers with an underscore (_). Please check the ON Semiconductor website to verify the updated device numbers. The most current and up-to-date ordering information can be found at www.onsemi.com. Please email any questions regarding the system integration to Fairchild_questions@onsemi.com.

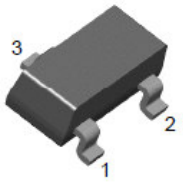
FAIRCHILD SEMICONDUCTOR®

June 2009

FJV92MTF
PNP Epitaxial Silicon Transistor

Features

- High Voltage Transistor



SOT-23
1.Base 2.Emitter 3.Collector

Absolute Maximum Ratings T_A = 25℃ unless otherwise noted

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	-350	V
V_{CEO}	Collector-Emitter Voltage	-350	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current	-500	mA
P_C	Collector Power Dissipation	350	mW
T_{STG}	Storage Temperature	150	℃
R_{TH}(j-a)	Thermal Resistance junction to Ambient	357	℃/W

Electrical Characteritics T_A = 25℃ unless otherwise noted

Symbol	Parameter	Test conditions	Min.	Max.	Units
BV_{CBO}	Collector-Base Breakdown Voltage	I_C = -100μA, I_E = 0	-350		V
BV_{CEO}	Collector-Emitter Breakdown Voltage*	I_C = -1mA, I_B = 0	-350		V
BV_{EBO}	Emitter-Base Breakdown Voltage	I_E = -100μA, I_C = 0	-5		V
I_{CBO}	Collector Cut-off Current	V_{CB} = -200V, I_E = 0		-0.25	μA
I_{EBO}	Emitter Cut-off Current	V_{EB}= -5V, I_C=0		-0.1	μA
h_{FE}	DC Current Gain*	V_{CE}= -10V, I_C= -1mA V_{CE}= -10V, I_C= -10mA V_{CE}= -10V, I_C= -30mA	25 40 25		
V_{CE} (sat)	Collector-Emitter Saturation Voltage*	I_C= -20mA, I_B= -2mA		-0.5	V
V_{BE} (sat)	Base-Emitter Saturation Voltage*	I_C= -20mA, I_B= -2mA		-0.9	V
C_{ob}	Output Capacitance	V_{CB}= -20V, I_E=0, f=1MHz		6	pF
f_T	Current Gain Bandwidth Product	V_{CE}= -20V, I_C= -10mA, f=100MHz	50		MHz

* Pulse Test: PW≤300μs, Duty Cycle≤2%

Typical Characteristics

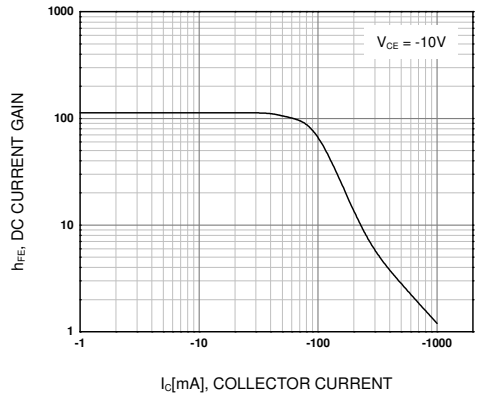


Figure 1. DC current Gain

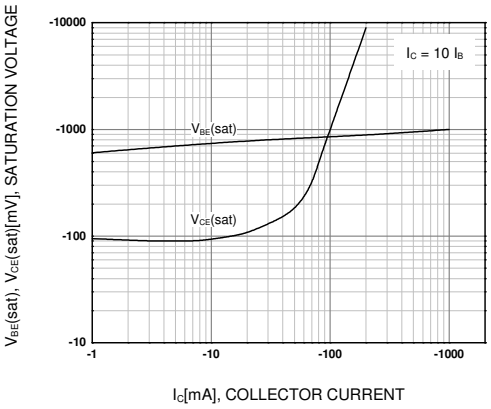


Figure 2. Saturation Voltage

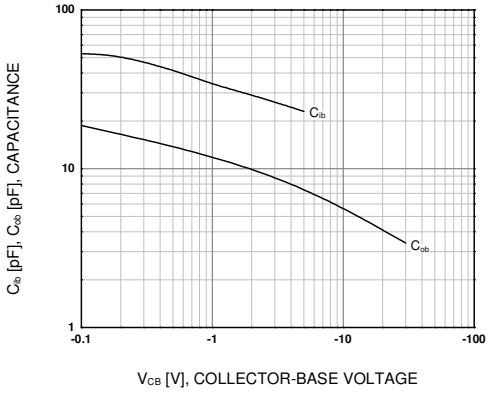


Figure 3. Capacitance

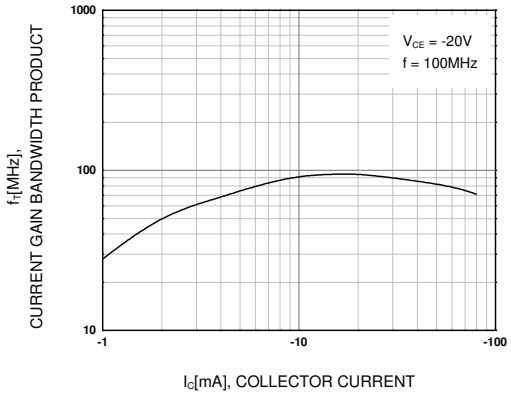
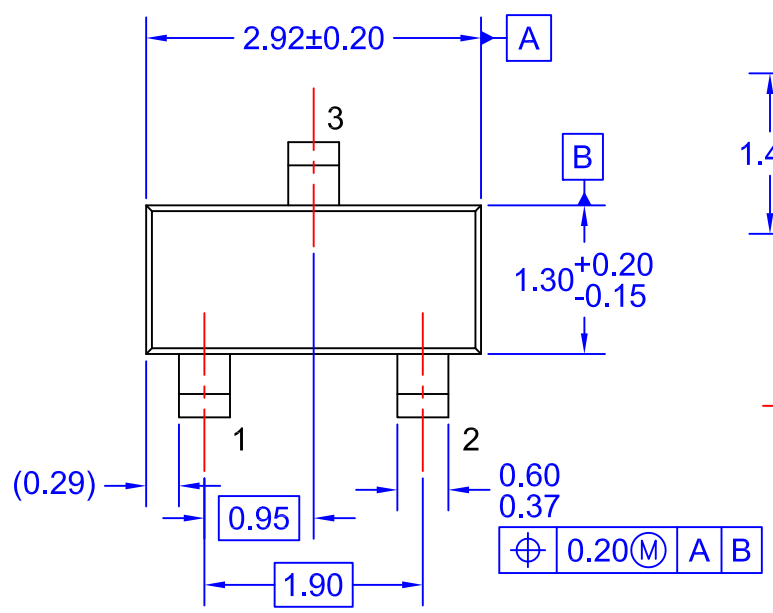
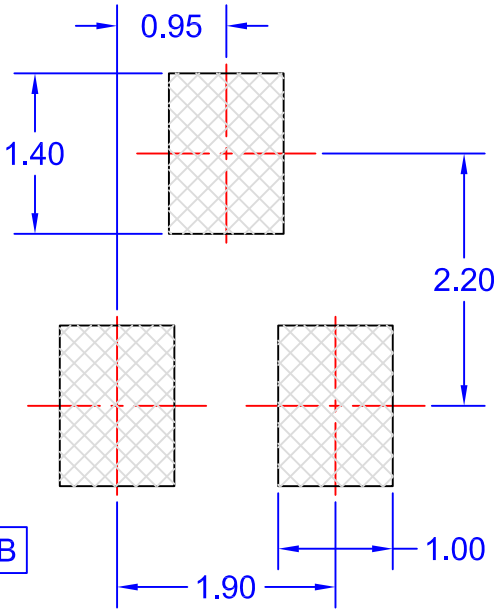
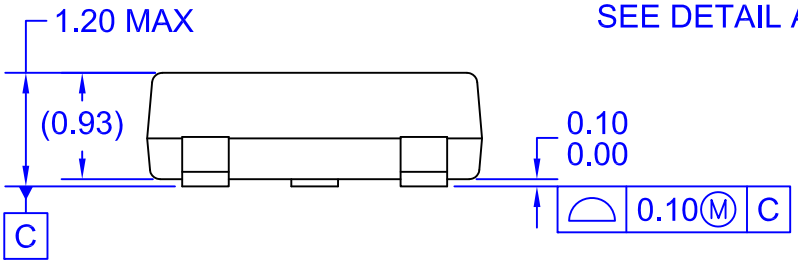


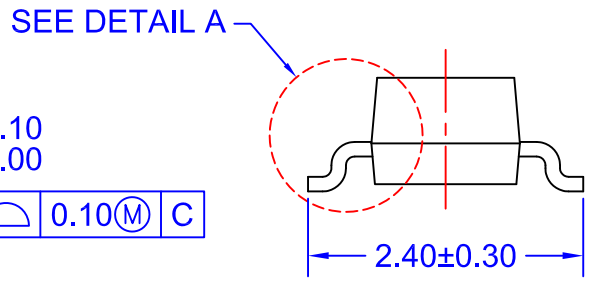
Figure 4. Current Gain Bandwidth Product

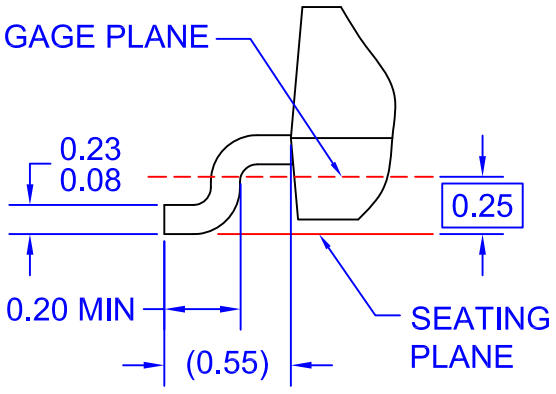




LAND PATTERN
RECOMMENDATION







DETAIL A
SCALE: 2X

NOTES: UNLESS OTHERWISE SPECIFIED

A) REFERENCE JEDEC REGISTRATION TO-236, VARIATION AB, ISSUE H.
B) ALL DIMENSIONS ARE IN MILLIMETERS.
C) DIMENSIONS ARE INCLUSIVE OF BURRS, MOLD FLASH AND TIE BAR EXTRUSIONS.
D) DIMENSIONING AND TOLERANCING PER ASME Y14.5M - 2009.
E) DRAWING FILE NAME: MA03DREV12

FAIRCHILD™

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