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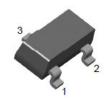
FJV92MTF — PNP Epitaxial Silicon Transistor

June 2009



### Features

• High Voltage Transistor



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

## Absolute Maximum Ratings $T_A = 25 \,^{\circ}C$ unless otherwise noted

Symbol	Parameter	Value	Units
V <sub>CBO</sub>	Collector-Base Voltage	-350	V
V <sub>CEO</sub>	Collector-Emitter Voltage	-350	V
V <sub>EBO</sub>	Emitter-Base Voltage	-5	V
۱ <sub>C</sub>	Collector Current	-500	mA
P <sub>C</sub>	Collector Power Dissipation	350	mW
T <sub>STG</sub>	Storage Temperature	150	C
R <sub>TH</sub> (j-a)	Thermal Resistance junction to Ambient	357	°C/W

## **Electrical Characteritics** $T_A = 25 \ ^{\circ}C$ unless otherwise noted

Symbol	Parameter	Test conditions	Min.	Max.	Units	
BV <sub>CBO</sub>	Collector-Base Breakdown Voltage	$I_{\rm C} = -100\mu A, \ I_{\rm E} = 0$	-350		V	
BV <sub>CEO</sub>	Collector-Emitter Breakdown Voltage*	$I_{\rm C} = -1 {\rm mA}, \ I_{\rm B} = 0$	-350		V	
$BV_{EBO}$	Emitter-Base Breakdown Voltage	$I_{\rm E} = -100\mu {\rm A}, \ I_{\rm C} = 0$	-5		V	
I <sub>CBO</sub>	Collector Cut-off Current	$V_{CB} = -200V, I_E = 0$		-0.25	μΑ	
I <sub>EBO</sub>	Emitter Cut-off Current	$V_{EB}$ = -5V, I <sub>C</sub> =0		-0.1	μA	
h <sub>FE</sub>	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 <sub>CE</sub> (sat)	Collector-Emitter Saturation Voltage*	I <sub>C</sub> = -20mA, I <sub>B</sub> = -2mA		-0.5	V	
V <sub>BE</sub> (sat)	Base-Emitter Saturation Voltage*	I <sub>C</sub> = -20mA, I <sub>B</sub> = -2mA		-0.9	V	
C <sub>ob</sub>	Output Capacitance	V <sub>CB</sub> = -20V, I <sub>E</sub> =0, f=1MHz		6	pF	
f <sub>T</sub>	Current Gain Bandwidth Product	V <sub>CE</sub> = -20V, I <sub>C</sub> = -10mA, f=100MHz	50		MHz	
* Pulse Test: PW≤300μs, Duty Cycle≤2%						

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#### **Typical Characteristics** V<sub>BE</sub>(sat), V<sub>CE</sub>(sat)[mV], SATURATION VOLTAGE 1000 -1000 V<sub>CE</sub> = -10V $I_{\rm C} = 10 \ I_{\rm B}$ hFE, DC CURRENT GAIN 100 -1000 (sat) V<sub>CE</sub>(sat) 10 -100 -10 -10 -100 -1000 -10 -100 -1000 Ic[mA], COLLECTOR CURRENT Ic[mA], COLLECTOR CURRENT Figure 1. DC current Gain Figure 2. Saturation Voltage 100 fr[MHz], CURRENT GAIN BANDWIDTH PRODUCT $V_{CE} = -20V$ f = 100MHz C<sub>16</sub> [pF], C<sub>06</sub> [pF], CAPACITANCE 10 100 1 └ -0.1 10 L -1 -10 -100 -10 -100 VCB [V], COLLECTOR-BASE VOLTAGE Ic[mA], COLLECTOR CURRENT Figure 3. Capacitance Figure 4. Current Gain Bandwidth Product

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