



**THE DATASHEET OF
FJY4012R**

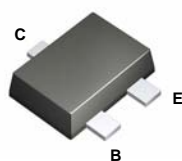


FJY4012R

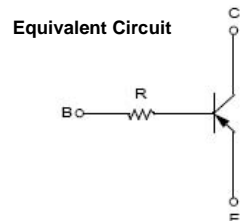
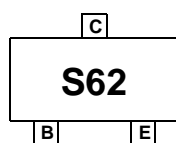
PNP Epitaxial Silicon Transistor

Features

- Switching circuit, Inverter, Interface circuit, Driver Circuit
- Built in bias Resistor (R=47KΩ)
- Complement to FJY3012R



SOT - 523F



Absolute Maximum Ratings* $T_a = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	-40	V
V_{CEO}	Collector-Emitter Voltage	-40	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current	-100	mA
T_{STG}	Storage Temperature Range	-55~150	$^\circ\text{C}$
T_J	Junction Temperature	150	$^\circ\text{C}$
P_C	Collector Power Dissipation, by $R_{\theta JA}$	200	mW

* These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

Thermal Characteristics* $T_a = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Max	Units
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	600	$^\circ\text{C/W}$

* Minimum land pad size.

Electrical Characteristics* $T_C = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Test Condition	MIN	Typ	MAX	Units
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	$I_C = -100 \mu\text{A}, I_E = 0$	-40			V
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C = -1 \text{mA}, I_B = 0$	-40			V
I_{CBO}	Collector-Cutoff Current	$V_{CB} = -30 \text{V}, I_E = 0$			-0.1	μA
h_{FE}	DC Current Gain	$V_{CE} = -5 \text{V}, I_C = -1 \text{mA}$	100		600	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = -10 \text{mA}, I_B = -1 \text{mA}$			-0.3	V
f_r	Current Gain - Bandwidth Product	$V_{CE} = -10 \text{V}, I_C = -5 \text{mA}$		200		MHz
C_{cb}	Output Capacitance	$V_{CB} = -10 \text{V}, I_E = 0, f = 1.0 \text{MHz}$		5.5		pF
R	Input Resistor		32	47	62	KΩ

* Pulse Test: $PW \leq 300 \mu\text{s}$, Duty Cycle $\leq 2\%$

Typical Performance Characteristics

Figure 1. DC current Gain

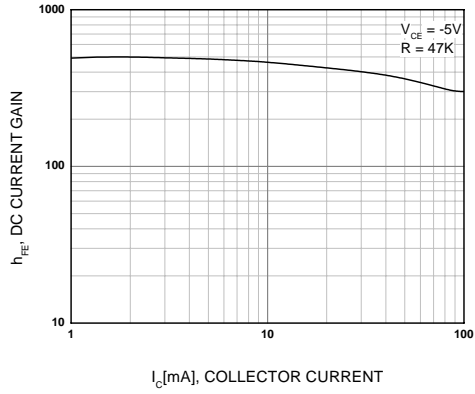


Figure 2. Collector-Emitter Saturation Voltage

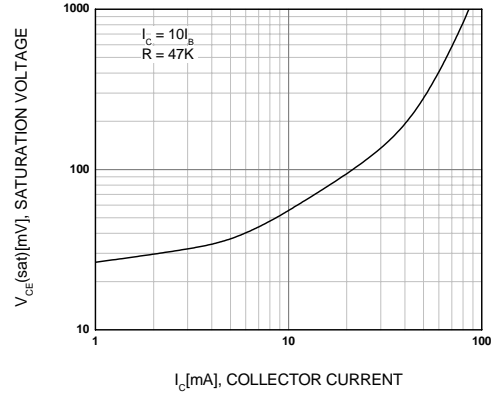
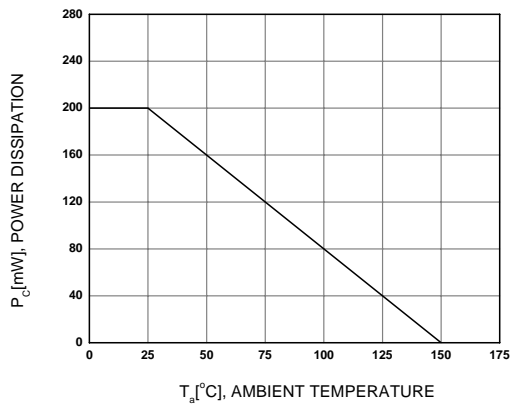
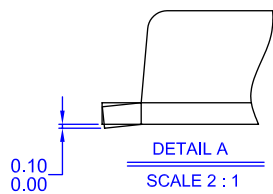
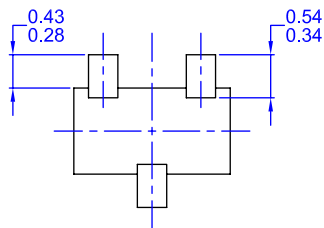
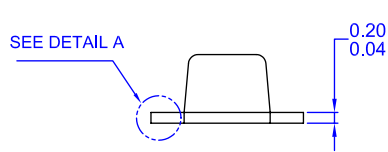
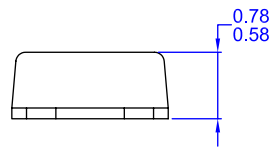
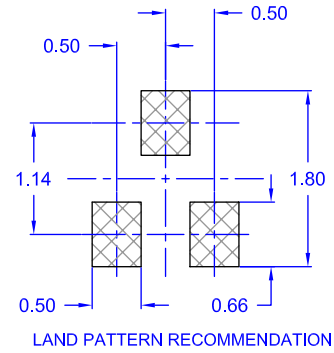
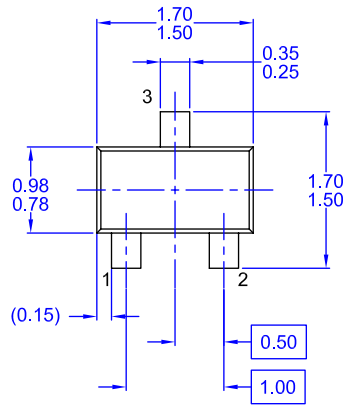


Figure 3. Power Derating



Package Dimensions

SOT-523F




NOTES: UNLESS OTHERWISE SPECIFIED
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 B) ALL DIMENSIONS ARE IN MILLIMETERS.
 C) DIMENSIONS ARE EXCLUSIVE OF BURRS, MOLD FLASH, AND TIE BAR EXTRUSIONS.

Dimensions in Millimeters



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