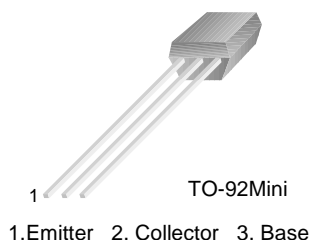


# FJNS7565

## For Output Amplifier of Electronic Flash Unit

- Low Collector-Emitter Saturation Voltage
- High Performance at Low Supply Voltage



## NPN Epitaxial Silicon Transistor

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

Symbol	Parameter	Ratings	Units
$V_{CBO}$	Collector-Base Voltage	15	V
$V_{CEO}$	Collector-Emitter Voltage	10	V
$V_{EBO}$	Emitter-Base Voltage	7	V
$I_C$	Collector Current	5	A
$P_C$	Collector Dissipation	0.55	W
$T_J$	Junction Temperature	150	$^\circ\text{C}$
$T_{STG}$	Storage Temperature	-55 ~ 150	$^\circ\text{C}$

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

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
$BV_{CBO}$	Collector-Base Voltage	$I_C = 10\mu\text{A}, I_E = 0$	15			V
$BV_{CEO}$	Collector-Emitter Voltage	$I_C = 1\text{mA}, I_B = 0$	10			V
$BV_{EBO}$	Emitter Base Voltage	$I_C = 10\mu\text{A}, I_C = 0$	7			V
$I_{CBO}$	Collector Cut-off Current	$V_{CB} = 15\text{V}, I_E = 0$			100	nA
$I_{EBO}$	Emitter Cut-off Current	$V_{EB} = 5\text{V}, I_C = 0$			100	nA
$h_{FE1}$ $h_{FE2}$ $h_{FE3}$	DC Current Gain	$V_{CE} = 2\text{V}, I_C = 0.5\text{A}$ $V_{CE} = 2\text{V}, I_C = 2\text{A}$ $V_{CE} = 2\text{V}, I_C = 5\text{A}$	450 300 150		800	
$V_{CE}(\text{sat})$	Collector-Emitter Saturation Voltage	$I_C = 3\text{A}, I_B = 60\text{mA}$			0.45	V
$V_{BE}(\text{sat})$	Base-Emitter Saturation Voltage	$I_C = 3\text{A}, I_B = 60\text{mA}$			1.5	V
$C_{ob}$	Collector Output Capacitance	$V_{CB} = 20\text{V}, I_E = 0, f = 1\text{MHz}$		20		pF

# Typical Characteristics

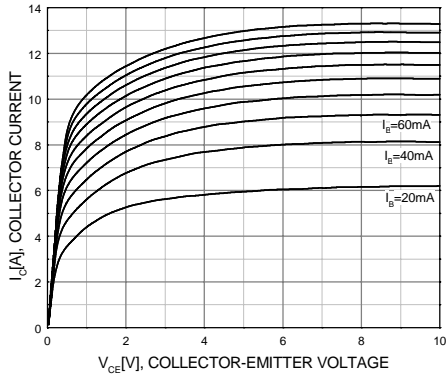


Figure 1. Static Characteristic

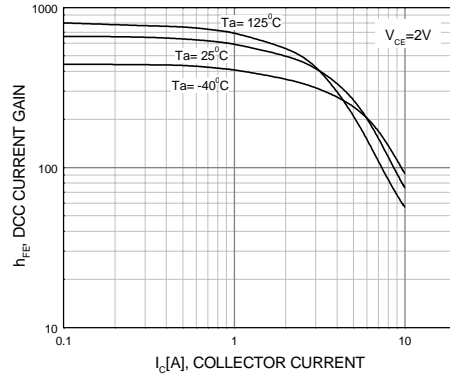


Figure 2. DC Current Gain

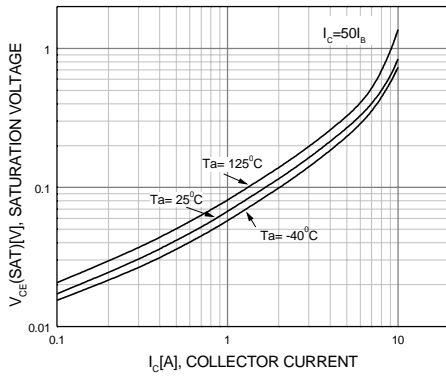


Figure 3. Collector-Emitter Saturation Voltage

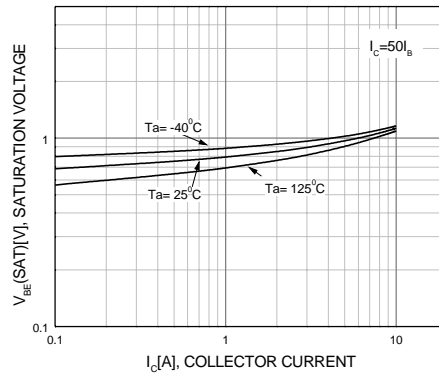


Figure 4. Base-Emitter Saturation Voltage

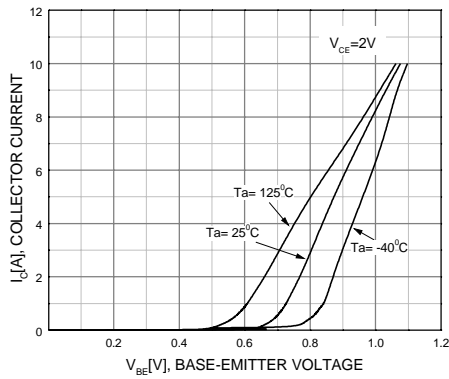


Figure 5. Base-Emitter On Voltage

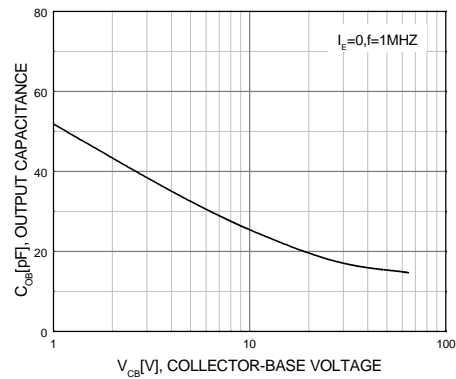
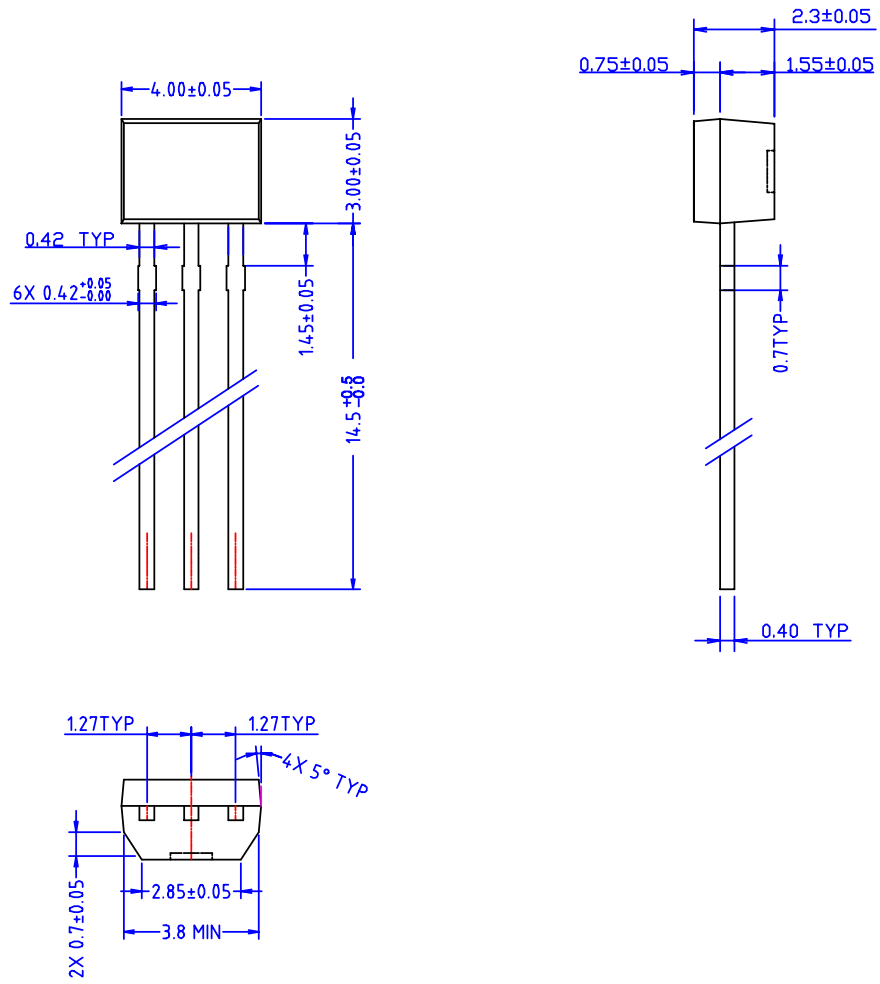


Figure 6. Collector Output Capacitance

# Package Dimensions

## TO-92Mini



Dimensions in Millimeters

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ActiveArray <sup>™</sup>	FACT Quiet series <sup>™</sup>	ISOPLANAR <sup>™</sup>	POP <sup>™</sup>	Stealth <sup>™</sup>
Bottomless <sup>™</sup>	FAST <sup>®</sup>	LittleFET <sup>™</sup>	Power247 <sup>™</sup>	SuperSOT <sup>™</sup> -3
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The Power Franchise <sup>™</sup>		OPTOLOGIC <sup>®</sup>	SILENT SWITCHER <sup>®</sup>	VCX <sup>™</sup>
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