FJN965BU Datasheet

DiGi Electronics Part Number	FJN965BU-DG
Manufacturer	onsemi
Manufacturer Product Number	FJN965BU
Description	TRANS NPN 20V 5A TO92-3
Detailed Description	Bipolar (BJT) Transistor NPN 20 V 5 A 150MHz 750 m W Through Hole TO-92-3

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Purchase and inquiry

Manufacturer Product Number:	Manufacturer:
FJN965BU	onsemi
Series:	Product Status:
-	Obsolete
Transistor Type:	Current - Collector (Ic) (Max):
NPN	5 A
Voltage - Collector Emitter Breakdown (Max):	Vce Saturation (Max) @ Ib, Ic:
20 V	1V @ 100mA, 3A
Current - Collector Cutoff (Max):	DC Current Gain (hFE) (Min) @ Ic, Vce:
1µA	230 @ 500mA, 2V
Power - Max:	Frequency - Transition:
750 mW	150MHz
Operating Temperature:	Mounting Type:
150°C (TJ)	Through Hole
Package / Case:	Supplier Device Package:
TO-226-3, TO-92-3 (TO-226AA)	TO-92-3
Base Product Number:	
FJN965	

Environmental & Export classification

Moisture Sensitivity Level (MSL):	REACH Status:
1 (Unlimited)	REACH Unaffected
ECCN:	HTSUS:
EAR99	8541.21.0075

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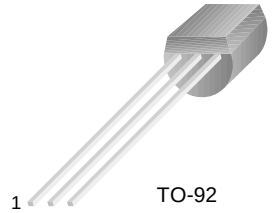
FJN965

For Output Amplifier of Electronic Flash Unit

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



TO-92

1. Emitter 2. Collector 3. Base

NPN Epitaxial Silicon Transistor

Absolute Maximum Ratings T_C=25°C unless otherwise noted

Symbol	Parameter	Ratings	Units
V_{CBO}	Collector-Base Voltage	40	V
V_{CEO}	Collector-Emitter Voltage	20	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current	5	A
P_C	Collector Dissipation	0.75	W
T_J	Junction Temperature	150	°C
T_{STG}	Storage Temperature	-55 ~ 150	°C

Electrical Characteristics T_C=25°C unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
BV_{CEO}	Collector-Emitter Voltage	I_C=1mA, I_B=0	20			V
BV_{EBO}	Emitter Base Voltage	I_C=100μA, I_C=0	7			V
I_{CBO}	Collector Cut-off Current	V_{CB}=10V, I_E=0			0.1	μA
I_{CEO}	Collector Cut-off Current	V_{CE}=10V, I_B=0			1	μA
I_{EBO}	Emitter Cut-off Current	V_{EB}=7V, I_C=0			0.1	μA
h_{FE1} h_{FE2}	DC Current Gain	V_{CE}=2V, I_C=0.5A V_{CE}=2V, I_C=2A	230 150		600	
V_{CE} (sat)	Collector-Emitter Saturation Voltage	I_C=3A, I_B=0.1A			1	V
f_T	Current Gain Band Width Product	V_{CE}=6V, I_C=50mA		150		MHz
C_{ob}	Collector Output Capacitance	V_{CB}=20V, I_E=0, f=1MHz		23		pF

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Typical Characteristics

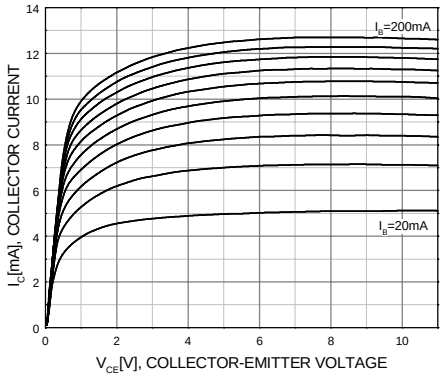

Figure 1. Static Characteristic

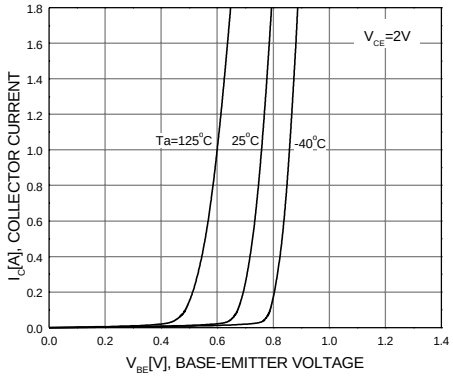

Figure 2. Base-Emitter On Voltage

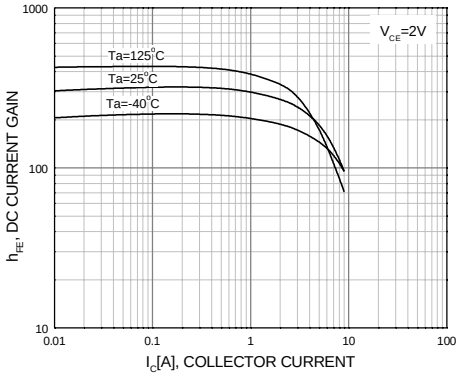

Figure 3. DC current Gain

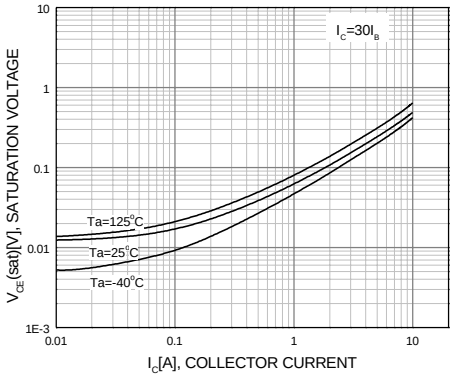

Figure 4. Collector-Emitter Saturation Voltage

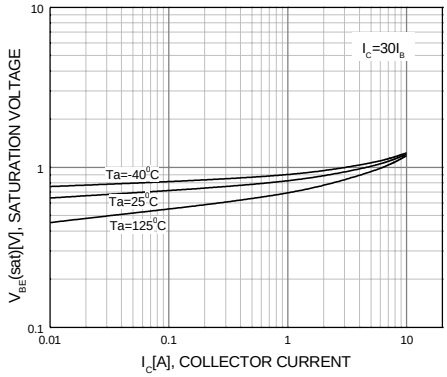

Figure 5. Base-Emitter On Voltage

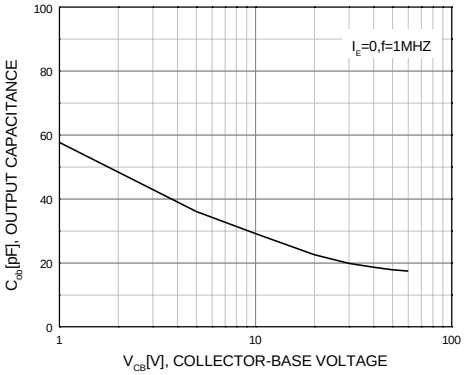

Figure 6. Collector Output Capacitance

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Typical Characteristics (Continued)

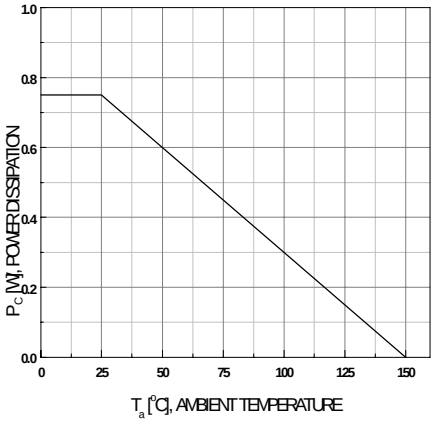

Figure 7. Power Derating

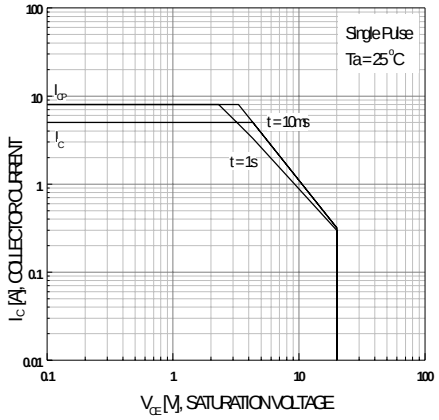

Figure 8. Forward Bias Safe Operating Area

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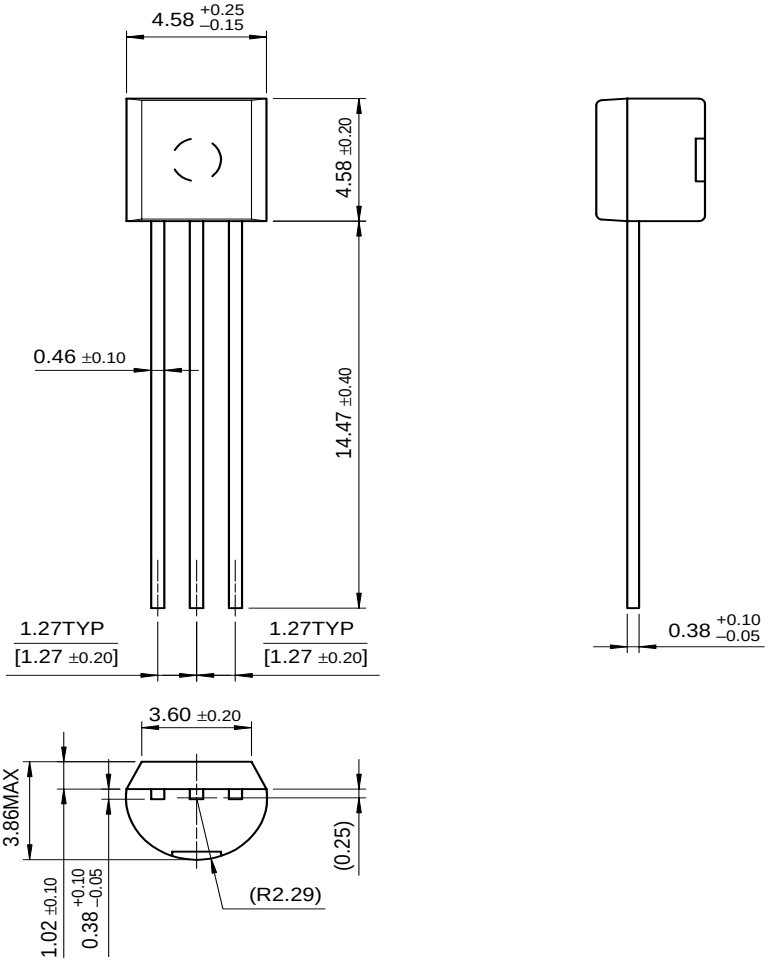
Package Dimensions

TO-92



Dimensions in Millimeters

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CoolFET™	FASTr™	MicroFET™	PowerTrench®	SuperSOT™-6
CROSSVOLT™	FRFET™	MicroPak™	QFET™	SuperSOT™-8
DOME™	GlobalOptoisolator™	MICROWIRE™	QS™	SyncFET™
EcoSPARK™	GTO™	MSX™	QT Optoelectronics™	TinyLogic™
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No Identification Needed	Full Production	This datasheet contains final specifications. Fairchild Semiconductor reserves the right to make changes at any time without notice in order to improve design.
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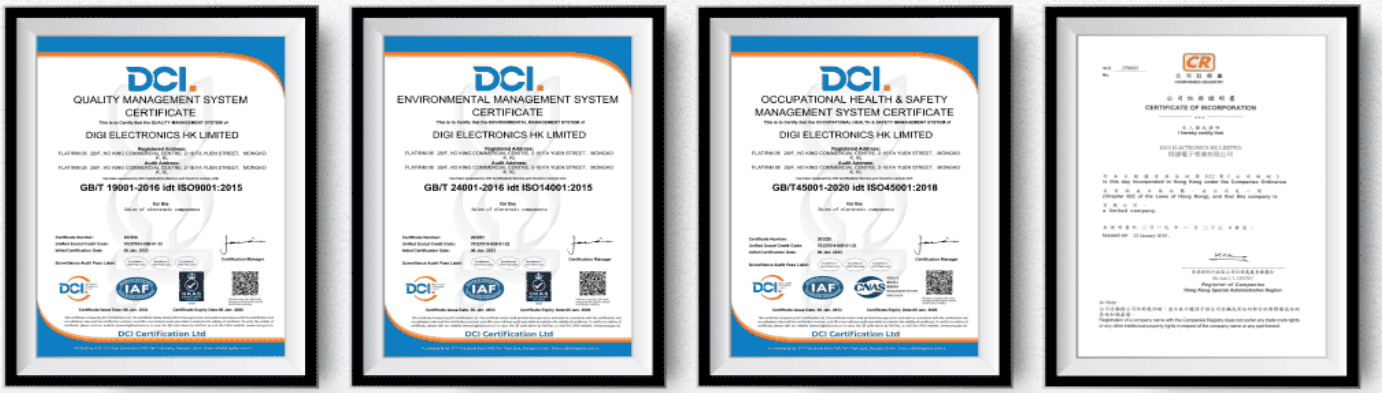

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