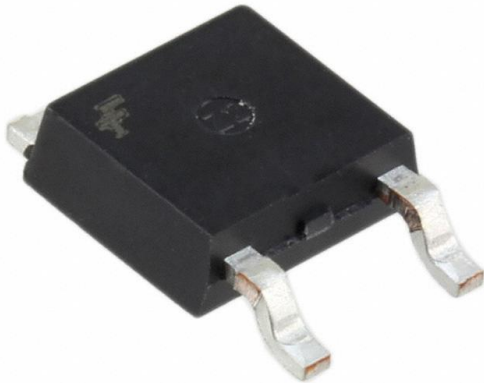


FJD3076TM Datasheet

www.digi-electronics.com



<https://www.DiGi-Electronics.com>

DiGi Electronics Part Number	FJD3076TM-DG
Manufacturer	onsemi
Manufacturer Product Number	FJD3076TM
Description	TRANS NPN 32V 2A DPAK
Detailed Description	Bipolar (BJT) Transistor NPN 32 V 2 A 100MHz 1 W S urface Mount DPAK



Tel: +00 852-30501935

RFQ Email: Info@DiGi-Electronics.com

DiGi is a global authorized distributor of electronic components.

Purchase and inquiry

Manufacturer Product Number:

FJD3076TM

Series:

-

Transistor Type:

NPN

Voltage - Collector Emitter Breakdown (Max):

32 V

Current - Collector Cutoff (Max):

1 μ A (ICBO)

Power - Max:

1 W

Operating Temperature:

150°C (TJ)

Package / Case:

TO-252-3, DPAK (2 Leads + Tab), SC-63

Base Product Number:

FJD3076

Manufacturer:

onsemi

Product Status:

Obsolete

Current - Collector (Ic) (Max):

2 A

Vce Saturation (Max) @ Ib, Ic:

800mV @ 200mA, 2A

DC Current Gain (hFE) (Min) @ Ic, Vce:

130 @ 500mA, 3V

Frequency - Transition:

100MHz

Mounting Type:

Surface Mount

Supplier Device Package:

DPAK

Environmental & Export classification

RoHS Status:

ROHS3 Compliant

REACH Status:

REACH Unaffected

HTSUS:

8541.29.0075

Moisture Sensitivity Level (MSL):

1 (Unlimited)

ECCN:

EAR99



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www.onsemi.com

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.

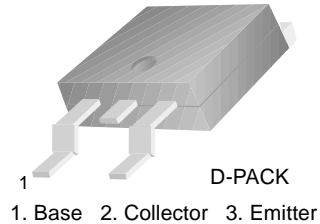
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FJD3076

Power Amplifier Applications

- Low Collector-Emitter Saturation Voltage



NPN Epitaxial Silicon Transistor

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

Symbol	Parameter	Value	Units
V_{CB0}	Collector-Base Voltage	40	V
V_{CEO}	Collector-Emitter Voltage	32	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current	2	A
P_C	Collector Dissipation ($T_a=25^\circ\text{C}$)	1	W
	Collector Dissipation ($T_C=25^\circ\text{C}$)	10	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_{CEO}	Collector-Emitter Breakdown Voltage	$I_C = 1\text{mA}$, $I_B = 0$	32			V
BV_{CB0}	Collector-Base Breakdown Voltage	$I_C = 50\mu\text{A}$	40			V
BV_{EBO}	Emitter-Base Breakdown Voltage	$I_E = 50\mu\text{A}$	5			V
I_{CB0}	Collector Cut-off Current	$V_{CB} = 20\text{V}$, $I_E = 0$			1	μA
I_{EBO}	Emitter Cut-off Current	$V_{EB} = 4\text{V}$, $I_C = 0$			1	μA
h_{FE}	DC Current Gain	$V_{CE} = 3\text{V}$, $I_C = 0.5\text{A}$	130		390	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = 2\text{A}$, $I_B = 0.2\text{A}$		0.5	0.8	V
f_T	Current Gain Bandwidth Product	$V_{CE} = 5\text{V}$, $I_E = -0.5\text{A}$, $f = 100\text{MHz}$		100		MHz
C_{ob}	Output Capacitance	$V_{CB} = 10\text{V}$, $I_E = 0\text{A}$, $f = 1\text{MHz}$		50		pF

Typical Characteristics

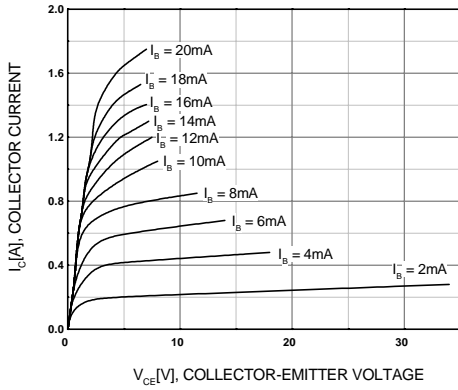


Figure 1. Static Characteristic

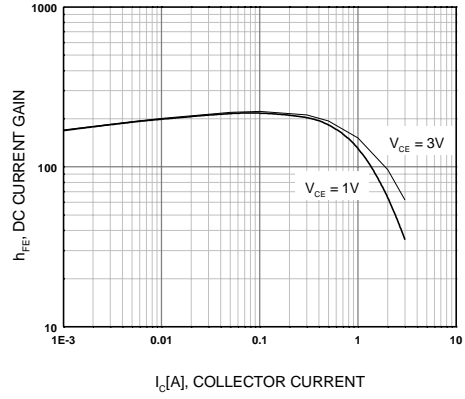


Figure 2. DC Current Gain

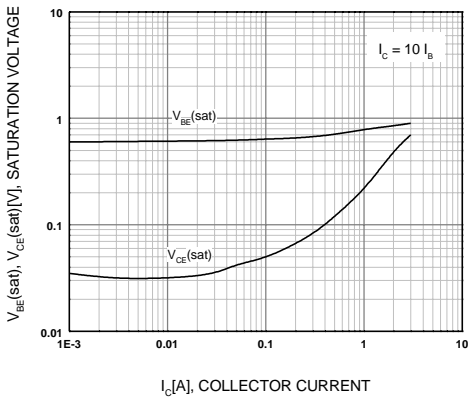


Figure 3. Base-Emitter Saturation Voltage
Collector-Emmitter Saturation Voltage

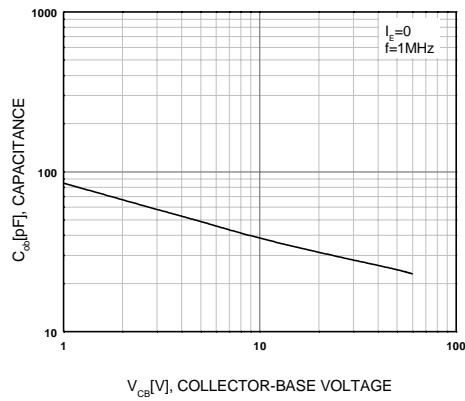


Figure 4. Collector Output Capacitance

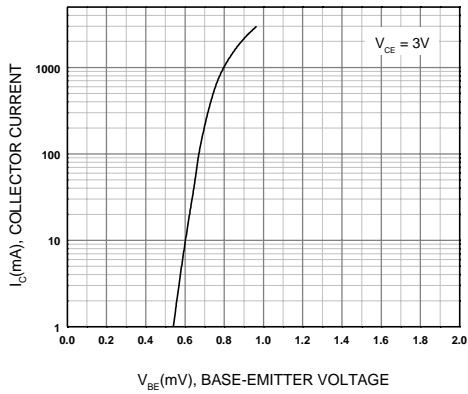


Figure 5. Base-Emitter On Voltage

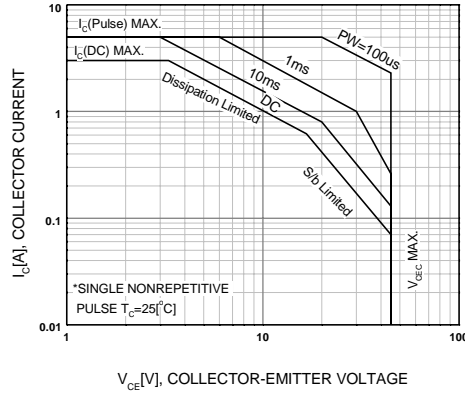
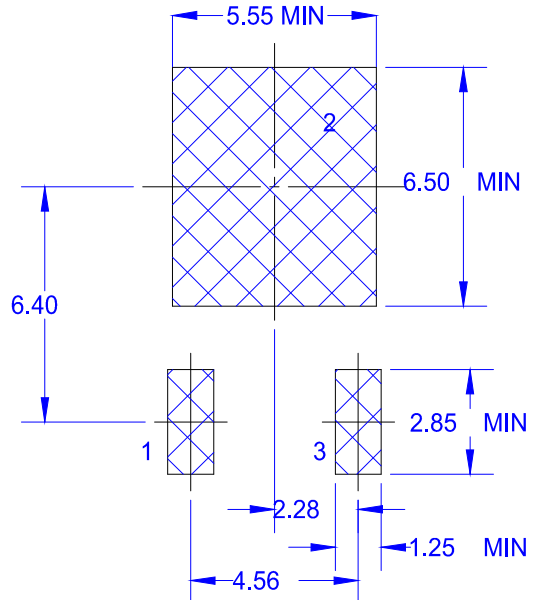
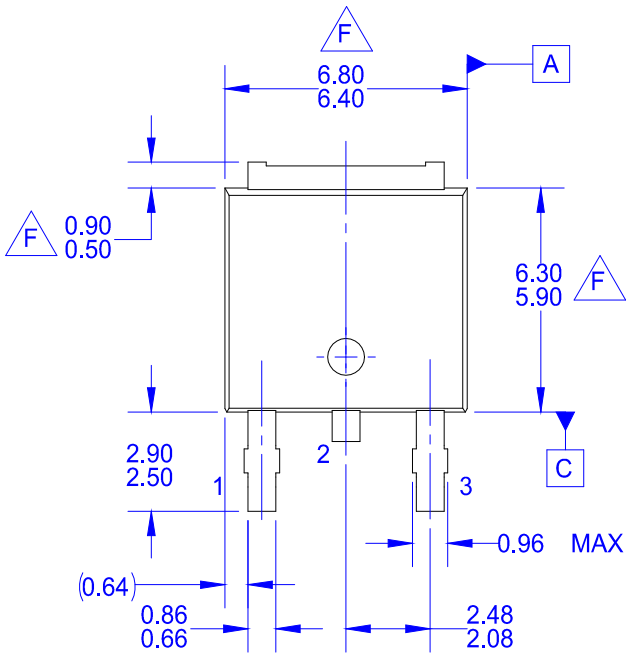
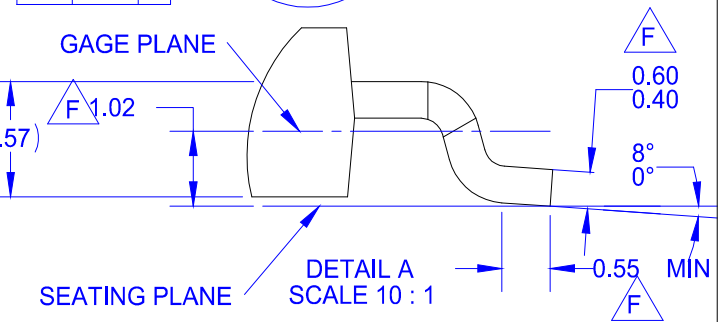
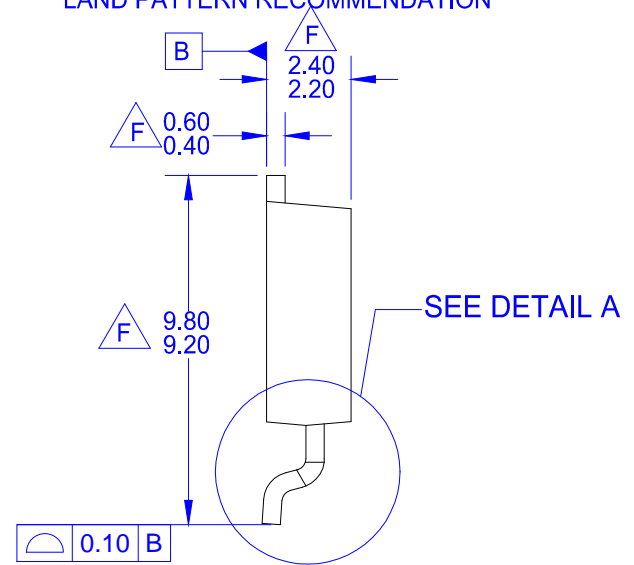
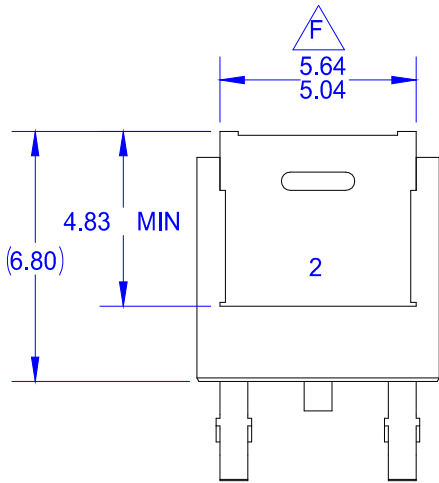


Figure 6. Safe Operating Area




LAND PATTERN RECOMMENDATION



NOTES: UNLESS OTHERWISE SPECIFIED

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- C) DIMENSIONS ARE EXCLUSIVE OF BURRS, MOLD FLASH, AND TIE BAR EXTRUSIONS
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