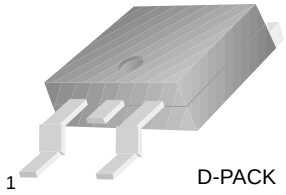
FAIRCHILD
SEMICONDUCTOR®

FJD3076

Power Amplifier Applications

- Low Collector-Emitter Saturation Voltage



D-PACK

1. Base 2. Collector 3. Emitter

NPN Epitaxial Silicon Transistor

Absolute Maximum Ratings T_C=25°C unless otherwise noted

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

Typical Characteristics

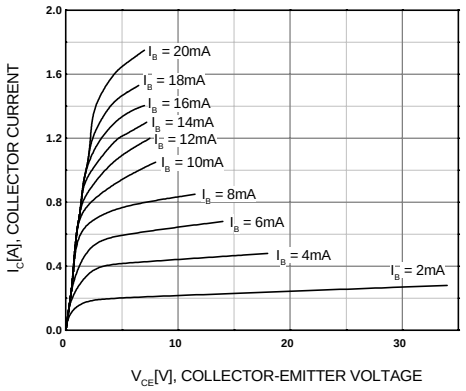


Figure 1. Static Characteristic

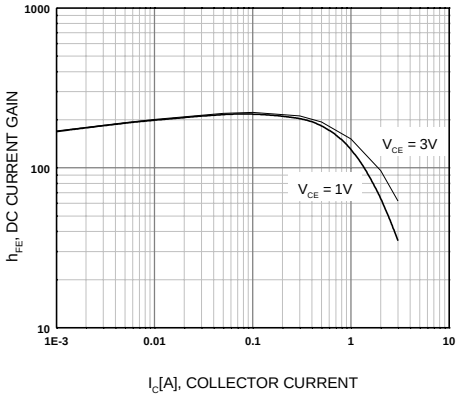


Figure 2. DC Current Gain

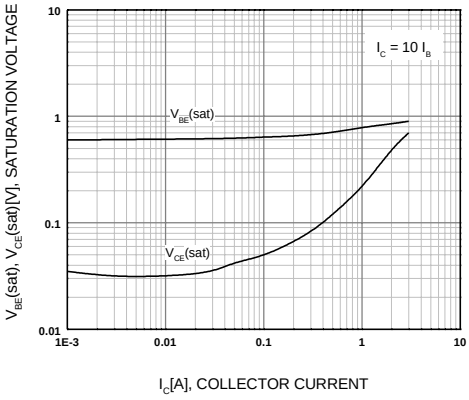


Figure 3. Base-Emitter Saturation Voltage Collector-Emitter Saturation Voltage

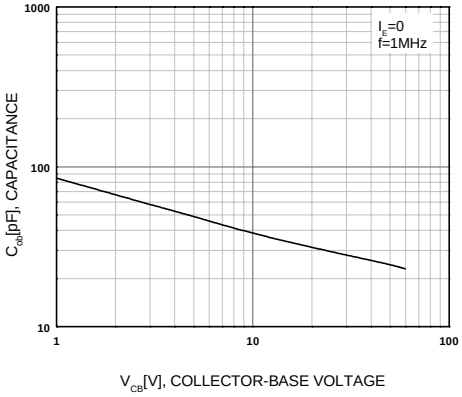


Figure 4. Collector Output Capacitance

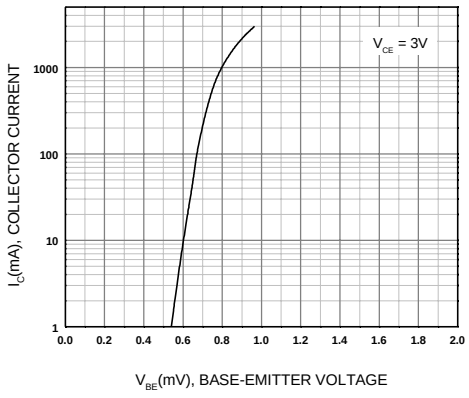


Figure 5. Base-Emitter On Voltage

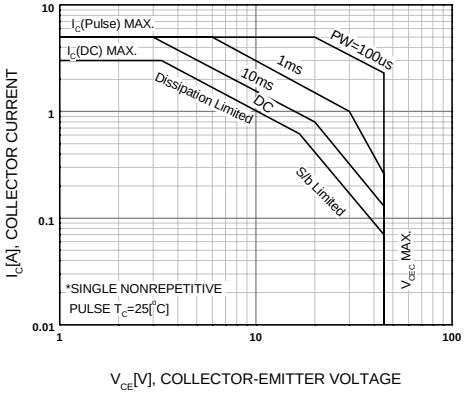
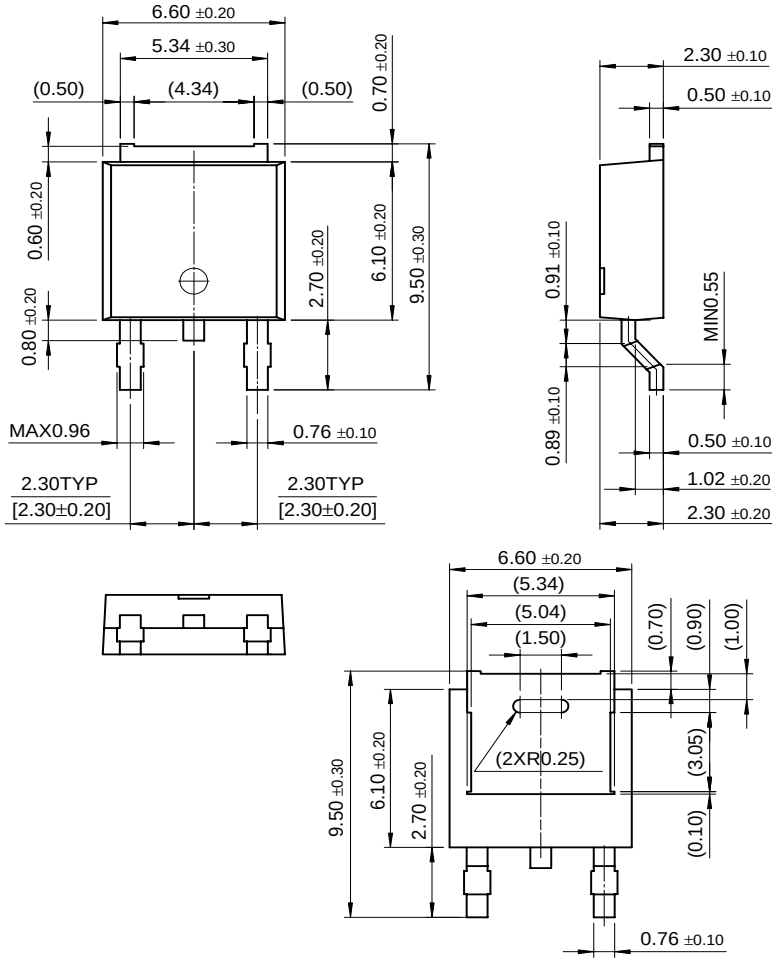


Figure 6. Safe Operating Area

Package Demensions

D-PAK



Dimensions in Millimeters

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PRODUCT STATUS DEFINITIONS

Definition of Terms

Datasheet Identification	Product Status	Definition
Advance Information	Formative or In Design	This datasheet contains the design specifications for product development. Specifications may change in any manner without notice.
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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.
Obsolete	Not In Production	This datasheet contains specifications on a product that has been discontinued by Fairchild semiconductor. The datasheet is printed for reference information only.

FJD3076

NPN Epitaxial Silicon Transistor

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Features

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Product status/pricing/packaging

BUY

Product	Product status	Pb-free Status	Pricing*	Package type	Leads	Packing method	Package Marking Convention**
FJD3076TF_NL	Full Production	Full Production	N/A	TO-252(DPAK)	2	TAPE REEL	Line 1: J3076 Line 3: &3
FJD3076TM	Full Production	Full Production	$0.264	TO-252(DPAK)	2	TAPE REEL	Line 1: J3076 Line 3: &3

* Fairchild 1,000 piece Budgetary Pricing
** A sample button will appear if the part is available through Fairchild's on-line samples program. If there is no sample button, please contact a Fairchild distributor to obtain samples

Indicates product with Pb-free second-level interconnect. For more information click here.

Package marking information for product FJD3076 is available. Click here for more information .

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Models

Package & leads	Condition	Temperature range	Vcc range	Software version	Revision date
PSPICE					
TO-252(DPAK)-2	Electrical/Thermal	-55°C to 150°C	0V to 10V	9.2	Jul 16, 2004

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Qualification Support

Click on a product for detailed qualification data

Product
FJD3076TF_NL
FJD3076TM

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