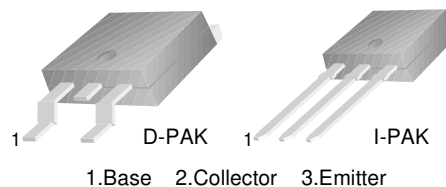


MJD32/32C

General Purpose Amplifier Low Speed Switching Applications D-PAK for Surface Mount Applications

- Load Formed for Surface Mount Application (No Suffix)
- Straight Lead (I-PAK, "- I" Suffix)
- Electrically Similar to Popular TIP32 and TIP32C



PNP Epitaxial Silicon Transistor

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

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	- 40	V
	: MJD32 : MJD32C	- 100	V
V_{CEO}	Collector-Emitter Voltage	- 40	V
	: MJD32 : MJD32C	- 100	V
V_{EBO}	Emitter-Base Voltage	- 5	V
I_C	Collector Current (DC)	- 3	A
I_{CP}	Collector Current (Pulse)	- 5	A
I_B	Base Current	- 1	A
P_C	Collector Dissipation ($T_C=25^\circ\text{C}$)	15	W
	Collector Dissipation ($T_a=25^\circ\text{C}$)	1.56	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{STG}	Storage Temperature	- 65 ~ 150	$^\circ\text{C}$

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

Symbol	Parameter	Test Condition	Min.	Max.	Units
$V_{CEO(sus)}$	* Collector-Emitter Sustaining Voltage	$I_C = - 30\text{mA}, I_B = 0$	-40		V
	: MJD32 : MJD32C				
I_{CEO}	Collector Cut-off Current	$V_{CE} = - 40\text{V}, I_B = 0$ $V_{CE} = - 60\text{V}, I_B = 0$		-50	μA
	: MJD32 : MJD32C				
I_{CES}	Collector Cut-off Current	$V_{CE} = - 40\text{V}, V_{BE} = 0$ $V_{CE} = - 100\text{V}, V_{BE} = 0$		-20	μA
	: MJD32 : MJD32C				
I_{EBO}	Emitter Cut-off Current	$V_{BE} = - 5\text{V}, I_C = 0$		-1	mA
h_{FE}	* DC Current Gain	$V_{CE} = - 4\text{V}, I_C = - 1\text{A}$ $V_{CE} = - 4\text{V}, I_C = - 3\text{A}$	25	10	50
$V_{CE(sat)}$	* Collector-Emitter Saturation Voltage	$I_C = - 3, I_B = - 375\text{mA}$		-1.2	V
$V_{BE(on)}$	* Base-Emitter ON Voltage	$V_{CE} = - 4\text{A}, I_C = - 3\text{A}$		-1.8	V
f_T	Current Gain Bandwidth Product	$V_{CE} = - 10\text{V}, I_C = - 500\text{mA}$	3		MHz

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

Typical Characteristics

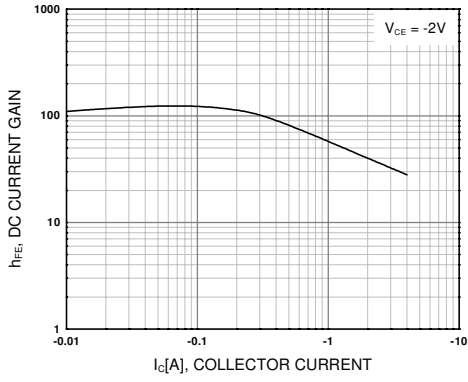


Figure 1. DC current Gain

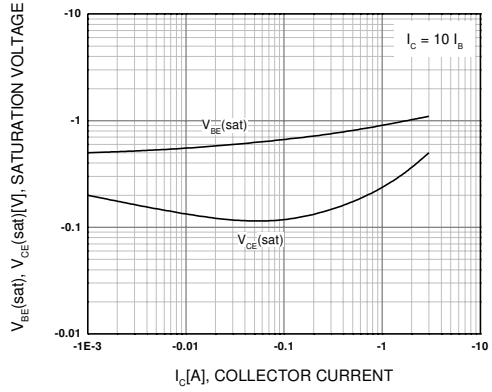


Figure 2. Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

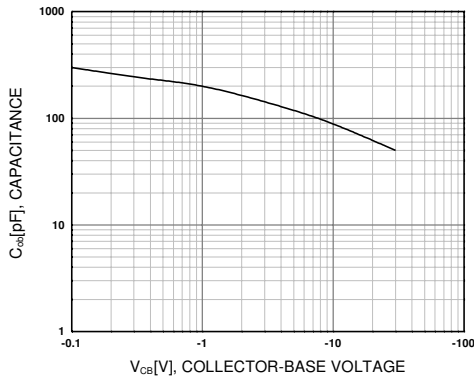


Figure 3. Collector Capacitance

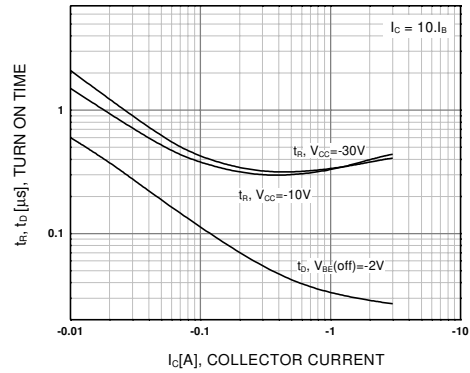


Figure 4. Turn On Time

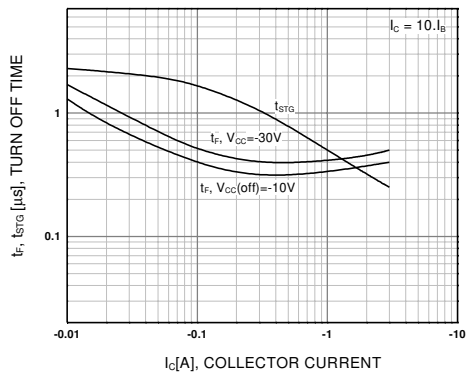


Figure 5. Turn Off Time

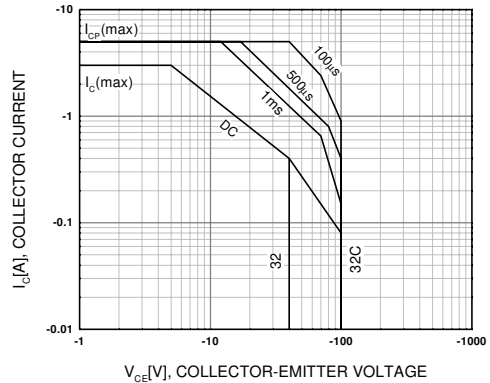


Figure 6. Safe Operating Area

Typical Characteristics (Continued)

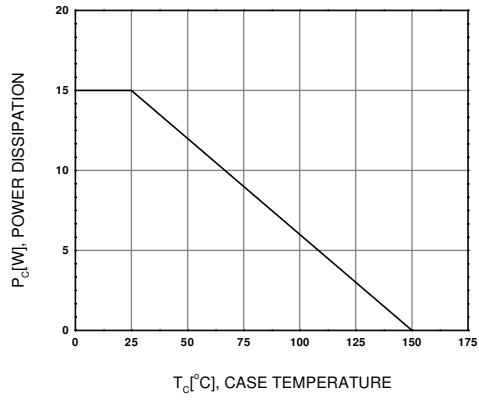
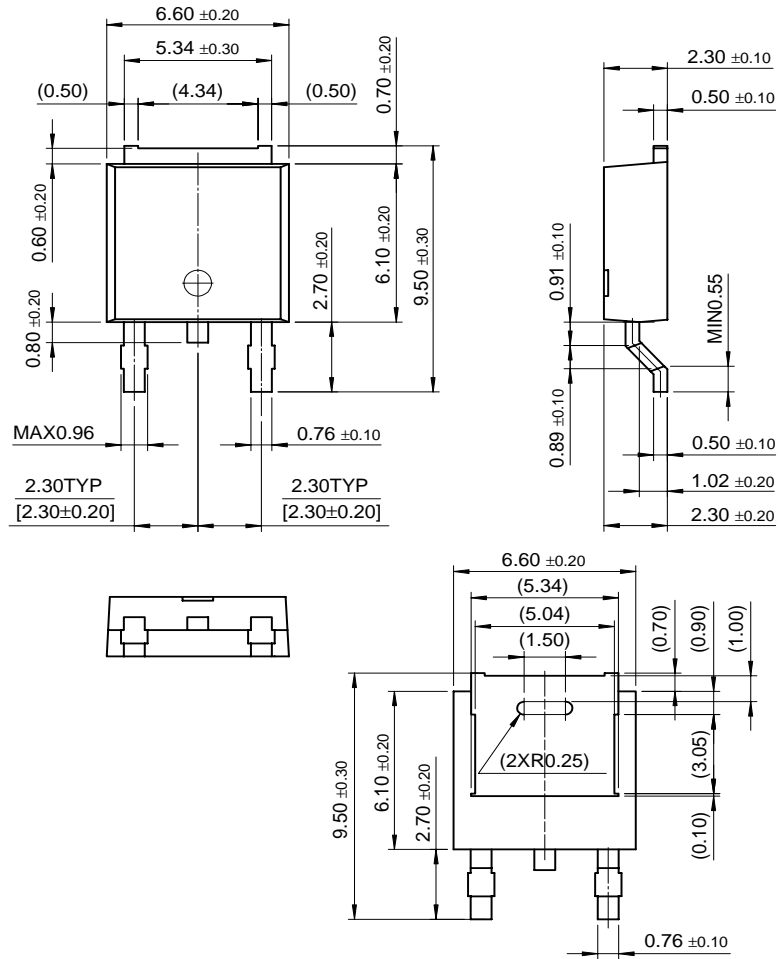


Figure 7. Power Derating

Package Dimensions

MJD32/32C

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.
Preliminary	First Production	This datasheet contains preliminary data, and supplementary data will be published at a later date. Fairchild Semiconductor reserves the right to make changes at any time without notice in order to improve design.
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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.

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MJD32C

PNP Epitaxial Silicon Transistor

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- [Features](#)
- [Product status/pricing/packageing](#)
- [Order Samples](#)
- [Models](#)

• [Qualification Support](#)

Features

General Purpose Amplifier
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[back to top](#)

Product status/pricing/packageing

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[Sales support](#)

[Quality and reliability](#)

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Product	Product status	Pb-free Status	Pricing*	Package type	Leads	Packing method	Package Marking Convention**
MJD32CTF	Full Production	Full Production	\$0.364	TO-252(DPAK)	2	TAPE REEL	Line 1: \$Y (Fairchild logo) &Z (Asm. Plant Code) &4 (4-Digit Date Code) Line 3: MJD32C
MJD32CTF_SBDD002A	Full Production	Full Production	N/A	TO-252(DPAK)	2	TAPE REEL	Line 1: \$Y (Fairchild logo) &Z (Asm. Plant Code) &4 (4-Digit Date Code) Line 3: MJD32C

* 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 MJD32C is available. [Click here for more information](#).

[back to top](#)

Models

Package & leads	Condition	Temperature range	Software version	Revision date
PSPICE				
TO-252(DPAK)-2	Electrical/Thermal	-25°C to 100°C	9.2	Mar 7, 2001

[back to top](#)

Qualification Support

Click on a product for detailed qualification data

Product
MJD32CTF
MJD32CTF_SBDD002A

[back to top](#)

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