

# Central<sup>TM</sup> Semiconductor Corp.

145 Adams Avenue, Hauppauge, NY 11788 USA  
Tel: (631) 435-1110 • Fax: (631) 435-1824

Manufacturers of World Class Discrete Semiconductors

BFT28  
BFT28A  
BFT28B  
BFT28C

SILICON PNP HIGH VOLTAGE TRANSISTOR

JEDEC TO-39 CASE

## DESCRIPTION

The CENTRAL SEMICONDUCTOR BFT28 Series types are PNP Silicon High Voltage Transistors mounted in a hermetically sealed metal case designed for amplifier and switching applications where high breakdown voltage is required.

## MAXIMUM RATINGS ( $T_C=25^\circ\text{C}$ unless otherwise noted)

	SYMBOL	BFT28	BFT28A	BFT28B	BFT28C	UNIT
Collector-Base Voltage	$V_{CB0}$	150	200	250	300	V
Collector-Emitter Voltage	$V_{CER}$	150	200	250	300	V
Collector-Emitter Voltage	$V_{CEO}$	100	150	200	250	V
Emitter-Base Voltage	$V_{EBO}$		4.0			V
Collector Current	$I_C$		1.0			A
Base Current	$I_B$		0.5			A
Power Dissipation	$P_D$		5.0			W
Operating and Storage Junction Temperature	$T_J, T_{STG}$		-65 TO +200			$^\circ\text{C}$
Thermal Resistance	$\theta_{JC}$		35			$^\circ\text{C/W}$

## ELECTRICAL CHARACTERISTICS ( $T_C=25^\circ\text{C}$ unless otherwise noted)

SYMBOL	TEST CONDITIONS	BFT28		BFT28A		BFT28B		BFT28C		UNIT
		MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	
$I_{CB0}$	$V_{CB}=50\text{V}$		1.0		-		-		-	$\mu\text{A}$
$I_{CB0}$	$V_{CB}=75\text{V}$		-		1.0		-		-	$\mu\text{A}$
$I_{CB0}$	$V_{CB}=150\text{V}$		-		-		5.0		5.0	$\mu\text{A}$
$I_{EBO}$	$V_{EB}=4.0$		100		100		100		100	$\mu\text{A}$
$BV_{CEO}$	$I_C=10\text{mA}$	100		150		200		250		V
$BV_{CER}$	$I_C=10\text{mA}$ , $R_{BE}=100\Omega$	150		200		250		300		V
$V_{CE(SAT)}$	$I_C=10\text{mA}$ , $I_B=1.0\text{mA}$		0.6		0.6		5.0		5.0	V
$V_{BE(SAT)}$	$I_C=30\text{mA}$ , $I_B=3.0\text{mA}$		1.5		1.5		1.5		1.5	V
$h_{FE}$	$V_{CE}=10\text{V}$ , $I_C=10\text{mA}$	20		20		20		20		
$h_{fe}$	$V_{CE}=10\text{V}$ , $I_C=5.0\text{mA}$	25		25		25		25		
$f_T$	$V_{CE}=10\text{V}$ , $I_C=30\text{mA}$ , $f=5.0\text{MHz}$	25		25		25		25		MHz
$C_{ob}$	$V_{CB}=10\text{V}$ , $f=1.0\text{MHz}$		15		15		15		15	pF
$C_{ib}$	$V_{EB}=5.0\text{V}$ , $I_C=0$ , $f=1.0\text{MHz}$		75		75		75		75	pF
$I_{s/b}$	$V_{CE}=80\text{V}$ , $t_{pulse}=0.4\text{s (non-Rep)}$	62.5		62.5		62.5		62.5		mA

## OUTSTANDING SUPPORT AND SUPERIOR SERVICES



---

### PRODUCT SUPPORT

Central's operations team provides the highest level of support to insure product is delivered on-time.

- Supply management (Customer portals)
- Inventory bonding
- Consolidated shipping options
- Custom bar coding for shipments
- Custom product packing

---

### DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free quick ship samples (2<sup>nd</sup> day air)
- Online technical data and parametric search
- SPICE models
- Custom electrical curves
- Environmental regulation compliance
- Customer specific screening
- Up-screening capabilities
- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- Application and design sample kits
- Custom product and package development

---

### REQUESTING PRODUCT PLATING

1. If requesting Tin/Lead plated devices, add the suffix " TIN/LEAD" to the part number when ordering (example: 2N2222A TIN/LEAD).
2. If requesting Lead (Pb) Free plated devices, add the suffix " PBFREE" to the part number when ordering (example: 2N2222A PBFREE).

---

### CONTACT US

#### Corporate Headquarters & Customer Support Team

Central Semiconductor Corp.  
145 Adams Avenue  
Hauppauge, NY 11788 USA  
Main Tel: (631) 435-1110  
Main Fax: (631) 435-1824  
Support Team Fax: (631) 435-3388  
[www.centrasemi.com](http://www.centrasemi.com)

**Worldwide Field Representatives:**  
[www.centrasemi.com/wwreps](http://www.centrasemi.com/wwreps)

**Worldwide Distributors:**  
[www.centrasemi.com/wwdistributors](http://www.centrasemi.com/wwdistributors)

---

For the latest version of Central Semiconductor's **LIMITATIONS AND DAMAGES DISCLAIMER**, which is part of Central's Standard Terms and Conditions of sale, visit: [www.centrasemi.com/terms](http://www.centrasemi.com/terms)