

# 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

BU406

BU407

BU408

NPN SILICON POWER TRANSISTOR

JEDEC TO-220 CASE

## DESCRIPTION

The CENTRAL SEMICONDUCTOR BU406 Series types are Silicon NPN High Voltage Power Transistors designed for fast switching, horizontal deflection output stages of monitors.

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

	SYMBOL	BU406	BU407	BU408	UNIT
Collector Base Voltage	$V_{CB0}$	400	330	400	V
Collector Emitter Voltage	$V_{CES}$	400	330	400	V
Collector Emitter Voltage	$V_{CEO}$	200	150	200	V
Emitter Base Voltage	$V_{EBO}$		6.0		V
Collector Current	$I_C$		7.0		A
Collector Current (PEAK)	$I_{CM}$		15		A
Base Current	$I_B$		4.0		A
Power Dissipation	$P_D$		60		W
Operating and Storage Junction Temperature	$T_J, T_{STG}$		-65 TO +150		$^\circ\text{C}$
Thermal Resistance	$\theta_{JC}$		2.08		$^\circ\text{C}/\text{W}$
Thermal Resistance	$\theta_{JA}$		70		$^\circ\text{C}/\text{W}$

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

SYMBOL	TEST CONDITIONS	BU406		BU407		BU408		UNIT
		MIN	MAX	MIN	MAX	MIN	MAX	
$I_{CES}$	$V_{CE}=\text{Rated } V_{CES}$		5.0		5.0		5.0	mA
$I_{CES}$	$V_{CE}=250\text{V}$ (406, 408), $V_{CE}=200\text{V}$ (407)		0.1		0.1		0.1	mA
$I_{CES}$	$V_{CE}=250\text{V}$ (406, 408), $V_{CE}=200\text{V}$ (407), $T_C=150^\circ\text{C}$		1.0		1.0		1.0	mA
$I_{EBO}$	$V_{EB}=6.0\text{V}$		1.0		1.0		1.0	mA
$V_{CE(S)}$	$I_C=5.0\text{A}$ , $I_B=0.5\text{A}$		1.0		1.0		-	V
$V_{CE(S)}$	$I_C=6.0\text{A}$ , $I_B=1.2\text{A}$		-		-		1.0	V
$V_{BE(S)}$	$I_C=5.0\text{A}$ , $I_B=0.5\text{A}$		1.2		1.2		-	V
$V_{BE(S)}$	$I_C=6.0\text{A}$ , $I_B=1.2\text{A}$		-		-		1.5	V
$f_T$	$V_{CE}=10\text{V}$ , $I_C=0.5\text{A}$ , $f=1.0\text{MHz}$	10		10		10		MHz
$t_f$	$V_{CC}=40\text{V}$ , $I_C=5.0\text{A}$ , $I_B=0.5\text{A}$		0.75		0.75		-	$\mu\text{s}$
$t_f$	$V_{CC}=40\text{V}$ , $I_C=6.0\text{A}$ , $I_B=1.2\text{A}$		-		-		0.4	$\mu\text{s}$
$C_{ob}$	$V_{CB}=10\text{V}$ , $I_E=0$ , $f=1.0\text{MHz}$	80TYP		80TYP		80TYP		pF
$I_s/b$	$V_{CE}=10\text{V}$ , $t=1.0\text{ sec}$	6.0TYP		6.0TYP		6.0TYP		A



## 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.centalsemi.com](http://www.centalsemi.com)

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

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

## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [Bipolar Transistors - BJT category](#):*

*Click to view products by [Central Semiconductor manufacturer](#):*

Other Similar products are found below :

[619691C](#) [MCH4017-TL-H](#) [MJ15024/WS](#) [MJ15025/WS](#) [BC546/116](#) [BC556/FSC](#) [BC557/116](#) [BSW67A](#) [HN7G01FU-A\(T5L,F,T](#)  
[NJVMJD148T4G](#) [NSVMMBT6520LT1G](#) [NTE187A](#) [NTE195A](#) [NTE2302](#) [NTE2330](#) [NTE2353](#) [NTE316](#) [IMX9T110](#) [NTE63](#) [NTE65](#)  
[C4460](#) [SBC846BLT3G](#) [2SA1419T-TD-H](#) [2SA1721-O\(TE85L,F\)](#) [2SA1727TLP](#) [2SA2126-E](#) [2SB1202T-TL-E](#) [2SB1204S-TL-E](#) [2SC5488A-](#)  
[TL-H](#) [2SD2150T100R](#) [SP000011176](#) [FMC5AT148](#) [2N2369ADCSM](#) [2SB1202S-TL-E](#) [2SC2412KT146S](#) [2SC4618TLN](#) [2SC5490A-TL-H](#)  
[2SD1816S-TL-E](#) [2SD1816T-TL-E](#) [CMXT2207 TR](#) [CPH6501-TL-E](#) [MCH4021-TL-E](#) [BC557B](#) [TTC012\(Q\)](#) [BULD128DT4](#) [JANTX2N3810](#)  
[Jantx2N5416](#) [US6T6TR](#) [KSF350](#) [068071B](#)