

CentralTM Semiconductor Corp.

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Manufacturers of World Class Discrete Semiconductors

BF391
BF392
BF393

NPN SILICON
HIGH VOLTAGE TRANSISTOR

JEDEC TO-92 CASE (EBC)

DESCRIPTION

The CENTRAL SEMICONDUCTOR BF391, BF392, BF393 types are Silicon NPN Transistors designed for high voltage amplifier applications.

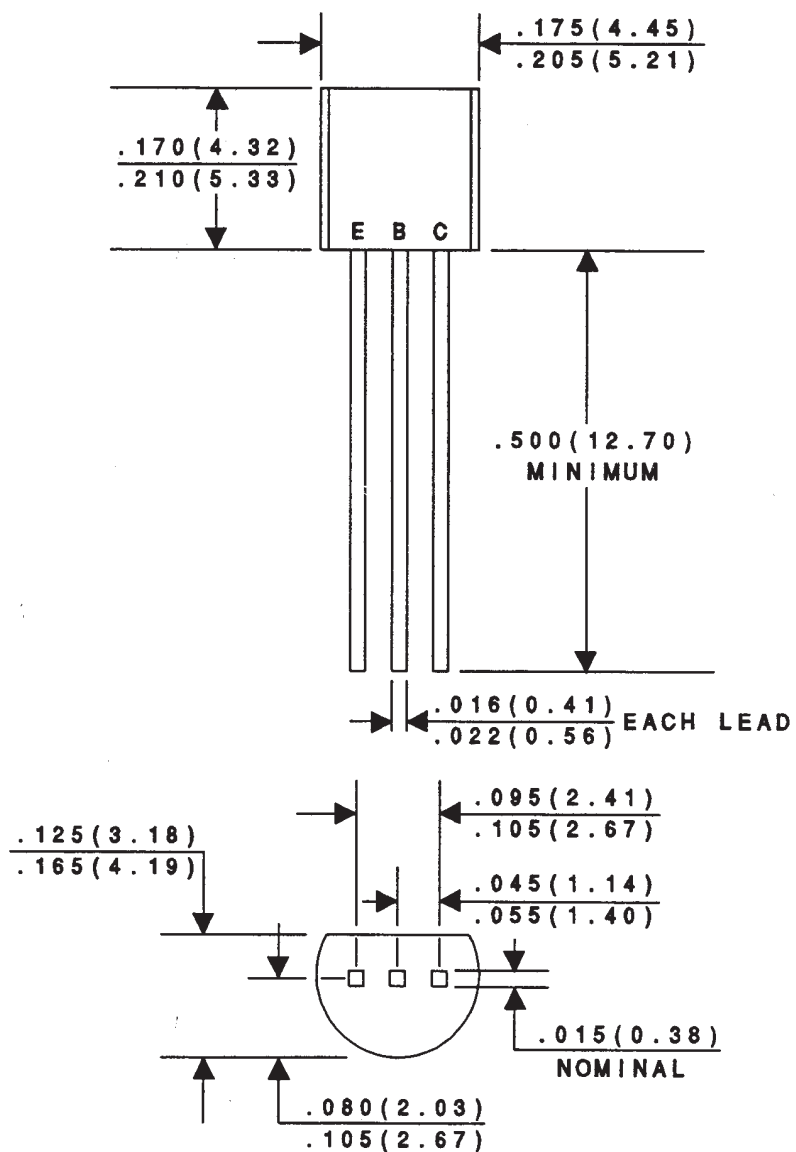
MAXIMUM RATINGS ($T_A = 25^\circ\text{C}$)

	SYMBOL	BF391	BF392	BF393	UNITS
Collector-Base Voltage	V_{CBO}	200	250	300	V
Collector-Emitter Voltage	V_{CEO}	200	250	300	V
Emitter-Base Voltage	V_{EBO}		6.0		V
Collector Current	I_C		500		A
Power Dissipation	P_D		625		mW
Power Dissipation ($T_C = 25^\circ\text{C}$)	P_D		1.5		W
Operating and Storage					
Junction Temperature	T_J, T_{stg}		-55 to +150		$^\circ\text{C}$
Thermal Resistance	θ_{JA}		200		$^\circ\text{C/W}$
Thermal Resistance	θ_{JC}		83.3		$^\circ\text{C/W}$

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

SYMBOL	TEST CONDITIONS	BF391		BF392		BF393		UNIT
		MIN	MAX	MIN	MAX	MIN	MAX	
I_{CBO}	$V_{CB} = 160\text{V}$		0.1		-		-	μA
I_{CBO}	$V_{CB} = 200\text{V}$		-		0.1		0.1	μA
I_{EBO}	$V_{BE} = 4.0\text{V}$		0.1		-		-	μA
I_{EBO}	$V_{BE} = 6.0\text{V}$		-		0.1		0.1	μA
BV_{CBO}	$I_C = 100\mu\text{A}$	200		250		300		V
BV_{CEO}	$I_C = 10\text{mA}$	200		250		300		V
BV_{EBO}	$I_C = 100\mu\text{A}$	6.0		6.0		6.0		V
$V_{CE(SAT)}$	$I_C = 20\text{mA}, I_B = 2.0\text{mA}$		2.0		2.0		2.0	V
$V_{BE(SAT)}$	$I_C = 20\text{mA}, I_B = 2.0\text{mA}$		2.0		2.0		2.0	V
h_{FE}	$V_{CE} = 10\text{V}, I_C = 1.0\text{mA}$	25		25		25		
h_{FE}	$V_{CE} = 10\text{V}, I_C = 10\text{mA}$	40		40		40		
f_T	$V_{CE} = 20\text{V}, I_C = 10\text{mA}, f = 20\text{MHz}$	50		50		50		MHz
C_{re}	$V_{CB} = 60\text{V}, I_E = 0, f = 1.0\text{MHz}$		1.6		6.0		6.0	pF

JEDEC TO-92 - MECHANICAL DIMENSIONS



ALL DIMENSIONS IN INCHES (mm).

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 (2nd 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

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