

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

145 Adams Ave., Hauppauge, NY 11788 USA  
Phone (631) 435-1110 FAX (631) 435-1824

Manufacturers of World Class Discrete Semiconductors  
www.centralsemi.com

2N3789  
2N3790  
2N3791  
2N3792

PNP POWER TRANSISTORS

JEDEC TO-3 CASE

## DESCRIPTION

The CENTRAL SEMICONDUCTOR 2N3789 Series types are silicon power transistors manufactured by the epitaxial planar process and designed for medium speed switching and amplifier applications.

## MAXIMUM RATINGS (T<sub>C</sub>=25°C unless otherwise noted)

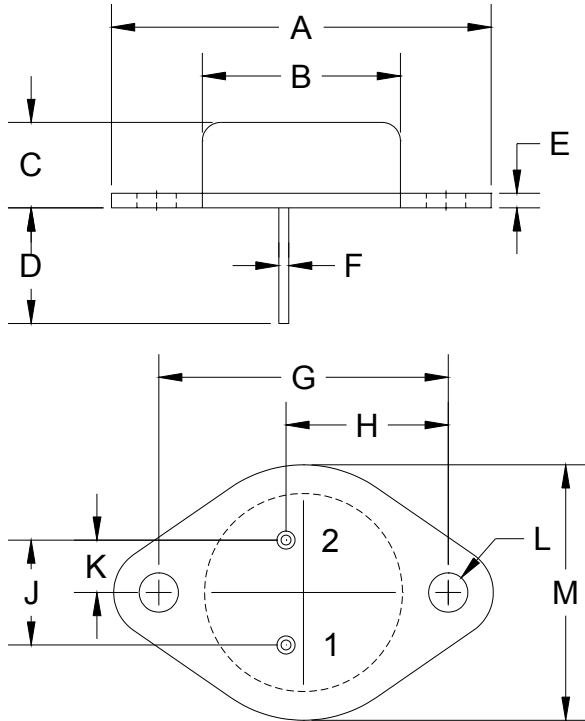
	SYMBOL	2N3789		2N3790		UNITS
		2N3791		2N3792		
Collector-Base Voltage	V <sub>CBO</sub>	60		80		V
Collector-Emitter Voltage	V <sub>CEO</sub>	60		80		V
Emitter-Base Voltage	V <sub>EBO</sub>		7.0			V
Collector Current	I <sub>C</sub>		10			A
Base Current	I <sub>B</sub>		4.0			A
Power Dissipation	P <sub>D</sub>		150			W
Operating and Storage Junction Temperature	T <sub>J</sub> , T <sub>stg</sub>		-65 to +200			°C
Thermal Resistance	θ <sub>JC</sub>		1.17			°C/W

## ELECTRICAL CHARACTERISTICS (T<sub>C</sub>=25°C unless otherwise noted)

SYMBOL	TEST CONDITIONS	2N3789		2N3790		UNITS
		2N3791		2N3792		
		MIN	MAX	MIN	MAX	
I <sub>CEV</sub>	V <sub>CE</sub> = Rated V <sub>CEO</sub> , V <sub>EB</sub> =1.5V		1.0		1.0	mA
I <sub>CEV</sub>	V <sub>CE</sub> = Rated V <sub>CEO</sub> , V <sub>EB</sub> =1.5V, T <sub>C</sub> =150°C		5.0		5.0	mA
I <sub>EBO</sub>	V <sub>EB</sub> =7.0V		5.0		5.0	mA
BV <sub>CEO</sub>	I <sub>C</sub> =200mA	60		80		V
V <sub>CE(SAT)</sub>	I <sub>C</sub> =4.0A, I <sub>B</sub> =400mA (2N3789, 2N3790)		1.0		1.0	V
V <sub>CE(SAT)</sub>	I <sub>C</sub> =5.0A, I <sub>B</sub> =500mA (2N3791, 2N3792)		1.0		1.0	V
V <sub>BE(ON)</sub>	V <sub>CE</sub> =2.0V, I <sub>C</sub> =5.0A (2N3789, 2N3790)		2.0		2.0	V
V <sub>BE(ON)</sub>	V <sub>CE</sub> =2.0V, I <sub>C</sub> =5.0A (2N3791, 2N3792)		1.8		1.8	V
V <sub>BE(ON)</sub>	V <sub>CE</sub> =4.0V, I <sub>C</sub> =10A		4.0		4.0	V
h <sub>FE</sub>	V <sub>CE</sub> =2.0V, I <sub>C</sub> =1.0A (2N3789, 2N3790)	25	90	25	90	
h <sub>FE</sub>	V <sub>CE</sub> =2.0V, I <sub>C</sub> =1.0A (2N3791, 2N3792)	50	180	50	180	
h <sub>FE</sub>	V <sub>CE</sub> =2.0V, I <sub>C</sub> =3.0A (2N3789, 2N3790)	15		15		
h <sub>FE</sub>	V <sub>CE</sub> =2.0V, I <sub>C</sub> =3.0A (2N3791, 2N3792)	30		30		
f <sub>T</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> =500mA, f=1.0MHz	4.0		4.0		MHz

(SEE REVERSE SIDE)

TO-3 PACKAGE - MECHANICAL OUTLINE



DIMENSIONS				
SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	1.516	1.573	38.50	39.96
B (DIA)	0.748	0.875	19.00	22.23
C	0.250	0.450	6.35	11.43
D	0.433	0.516	11.00	13.10
E	0.054	0.065	1.38	1.65
F	0.035	0.045	0.90	1.15
G	1.177	1.197	29.90	30.40
H	0.650	0.681	16.50	17.30
J	0.420	0.440	10.67	11.18
K	0.205	0.225	5.21	5.72
L (DIA)	0.151	0.172	3.84	4.36
M	0.984	1.050	25.00	26.67

TO-3 (REV: R2)

R2

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