

CentralTM Semiconductor Corp.

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Manufacturers of World Class Discrete Semiconductors

www.centrasemi.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.

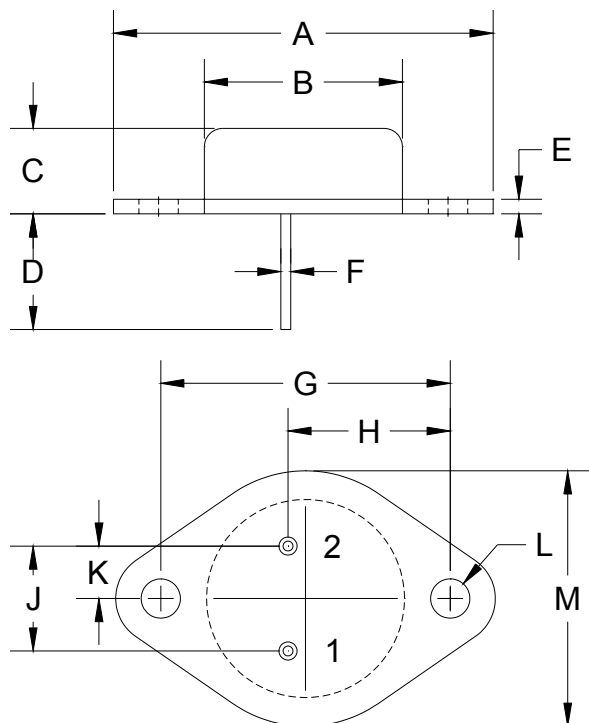
MAXIMUM RATINGS ($T_C=25^{\circ}\text{C}$ unless otherwise noted)

	SYMBOL	2N3789 2N3791	2N3790 2N3792	UNITS
Collector-Base Voltage	V_{CBO}	60	80	V
Collector-Emitter Voltage	V_{CEO}	60	80	V
Emitter-Base Voltage	V_{EBO}	7.0		V
Collector Current	I_C	10		A
Base Current	I_B	4.0		A
Power Dissipation	P_D	150		W
Operating and Storage Junction Temperature	T_J, T_{stg}	-65 to +200		$^{\circ}\text{C}$
Thermal Resistance	θ_{JC}	1.17		$^{\circ}\text{C/W}$

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

SYMBOL	TEST CONDITIONS	2N3789 2N3791		2N3790 2N3792		UNITS
		MIN	MAX	MIN	MAX	
I_{CEV}	$V_{CE} = \text{Rated } V_{CEO}, V_{EB} = 1.5\text{V}$		1.0		1.0	mA
I_{CEV}	$V_{CE} = \text{Rated } V_{CEO}, V_{EB} = 1.5\text{V}, T_C = 150^{\circ}\text{C}$		5.0		5.0	mA
I_{EBO}	$V_{EB} = 7.0\text{V}$		5.0		5.0	mA
BV_{CEO}	$I_C = 200\text{mA}$	60		80		V
$V_{CE(SAT)}$	$I_C = 4.0\text{A}, I_B = 400\text{mA}$ (2N3789, 2N3790)		1.0		1.0	V
$V_{CE(SAT)}$	$I_C = 5.0\text{A}, I_B = 500\text{mA}$ (2N3791, 2N3792)		1.0		1.0	V
$V_{BE(ON)}$	$V_{CE} = 2.0\text{V}, I_C = 5.0\text{A}$ (2N3789, 2N3790)		2.0		2.0	V
$V_{BE(ON)}$	$V_{CE} = 2.0\text{V}, I_C = 5.0\text{A}$ (2N3791, 2N3792)		1.8		1.8	V
$V_{BE(ON)}$	$V_{CE} = 4.0\text{V}, I_C = 10\text{A}$		4.0		4.0	V
h_{FE}	$V_{CE} = 2.0\text{V}, I_C = 1.0\text{A}$ (2N3789, 2N3790)	25	90	25	90	
h_{FE}	$V_{CE} = 2.0\text{V}, I_C = 1.0\text{A}$ (2N3791, 2N3792)	50	180	50	180	
h_{FE}	$V_{CE} = 2.0\text{V}, I_C = 3.0\text{A}$ (2N3789, 2N3790)	15		15		
h_{FE}	$V_{CE} = 2.0\text{V}, I_C = 3.0\text{A}$ (2N3791, 2N3792)	30		30		
f_T	$V_{CE} = 10\text{V}, I_C = 500\text{mA}, f = 1.0\text{MHz}$	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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