2N6107 2N6109 2N6111 PNP
2N6288 2N6290 2N6292 NPN

COMPLEMENTARY
SILICON POWER TRANSISTORS

TO-220 CASE

Central Semiconductor Corp.

www.centralsemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR 2N6107, 2N6288 series types are complementary silicon power transistors, manufactured by the epitaxial base process, designed for general purpose power amplifier and switching applications.

MARKING: FULL PART NUMBER

MAXIMUM RATINGS: (T_C=25°C)	**SYMBOL**	**2N6111 2N6288**	**2N6109 2N6290**	**2N6107 2N6292**	**UNITS**
Collector-Base Voltage	V_{CBO}	40	60	80	V
Collector-Emitter Voltage	V_{CEO}	30	50	70	V
Emitter-Base Voltage	V_{EBO}		5.0		V
Continuous Collector Current	I_C		7.0		A
Peak Collector Current	I_{CM}		10		A
Continuous Base Current	I_B		3.0		A
Power Dissipation	P_D		40		W
Operating and Storage Junction Temperature	T_J, T_{stg}		-65 to +150		°C
Thermal Resistance	Θ_{JC}		3.13		°C/W

ELECTRICAL CHARACTERISTICS: (T_C=25°C unless otherwise noted)

SYMBOL	**TEST CONDITIONS**	**MIN**	**MAX**	**UNITS**
I_{CEV}	V_{CE}=Rated V_{CEO}, V_{EB}=1.5V		100	μA
I_{CEV}	V_{CE}=Rated V_{CEO}, V_{EB}=1.5V, T_C=150°C		2.0	mA
I_{CEO}	V_{CE}=20V (2N6111, 2N6288)		1.0	mA
I_{CEO}	V_{CE}=40V (2N6109, 2N6290)		1.0	mA
I_{CEO}	V_{CE}=60V (2N6107, 2N6292)		1.0	mA
I_{EBO}	V_{EB}=5.0V		1.0	mA
BV_{CEO}	I_C=100mA (2N6111, 2N6288)	30		V
BV_{CEO}	I_C=100mA (2N6109, 2N6290)	50		V
BV_{CEO}	I_C=100mA (2N6107, 2N6292)	70		V
$V_{CE(SAT)}$	I_C=7.0A, I_B=3.0A		3.5	V
$V_{BE(ON)}$	V_{CE}=4.0V, I_C=7.0A		3.0	V
h_{FE}	V_{CE}=4.0V, I_C=2.0A (2N6107, 2N6292)	30	150	
h_{FE}	V_{CE}=4.0V, I_C=2.5A (2N6109, 2N6290)	30	150	
h_{FE}	V_{CE}=4.0V, I_C=3.0A (2N6111, 2N6288)	30	150	
h_{FE}	V_{CE}=4.0V, I_C=7.0A	2.3		
h_{fe}	V_{CE}=4.0V, I_C=0.5A, f=50kHz	20		
f_T	V_{CE}=4.0V, I_C=0.5A, f=1.0MHz	4.0		MHz
C_{ob}	V_{CB}=10V, I_E=0, f=1.0MHz		250	pF

R1 (10-April 2013)

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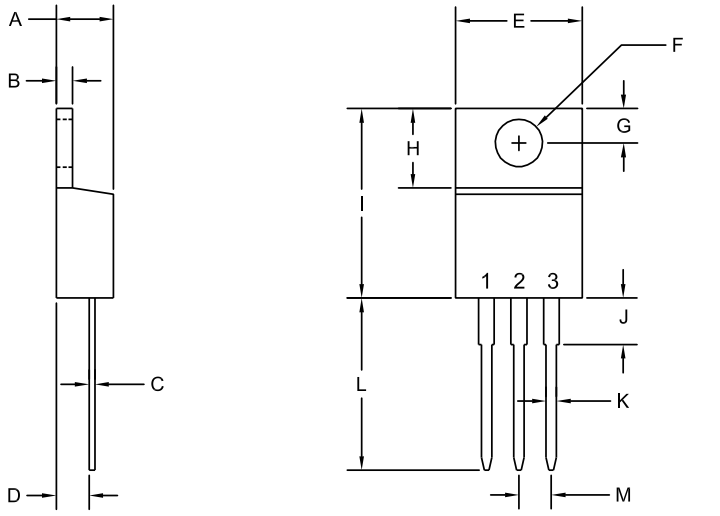
TO-220 CASE - MECHANICAL OUTLINE



R2

LEAD CODE:
1) Base
2) Collector
3) Emitter
Tab) Collector

MARKING:
FULL PART NUMBER

DIMENSIONS				
	INCHES		MILLIMETERS	
SYMBOL	MIN	MAX	MIN	MAX
A	0.170	0.190	4.31	4.82
B	0.045	0.055	1.15	1.39
C	0.013	0.026	0.33	0.65
D	0.083	0.107	2.10	2.72
E	0.394	0.417	10.01	10.60
F (DIA)	0.140	0.157	3.55	4.00
G	0.100	0.118	2.54	3.00
H	0.230	0.270	5.85	6.85
I	0.560	0.625	14.23	15.87
J	-	0.250	-	6.35
K	0.025	0.038	0.64	0.96
L	0.500	0.579	12.70	14.70
M	0.090	0.110	2.29	2.79

TO-220 (REV: R2)

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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