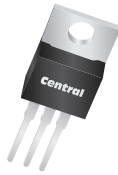


2N6107 2N6109 2N6111 PNP  
 2N6288 2N6290 2N6292 NPN

**COMPLEMENTARY  
 SILICON POWER TRANSISTORS**



**TO-220 CASE**



[www.centralemi.com](http://www.centralemi.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:** ( $T_C=25^\circ\text{C}$ )

Collector-Base Voltage  
 Collector-Emitter Voltage  
 Emitter-Base Voltage  
 Continuous Collector Current  
 Peak Collector Current  
 Continuous Base Current  
 Power Dissipation  
 Operating and Storage Junction Temperature  
 Thermal Resistance

SYMBOL	2N6111	2N6109	2N6107	UNITS
	2N6288	2N6290	2N6292	
$V_{CBO}$	40	60	80	V
$V_{CEO}$	30	50	70	V
$V_{EBO}$		5.0		V
$I_C$		7.0		A
$I_{CM}$		10		A
$I_B$		3.0		A
$P_D$		40		W
$T_J, T_{stg}$		-65 to +150		$^\circ\text{C}$
$\theta_{JC}$		3.13		$^\circ\text{C/W}$

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

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

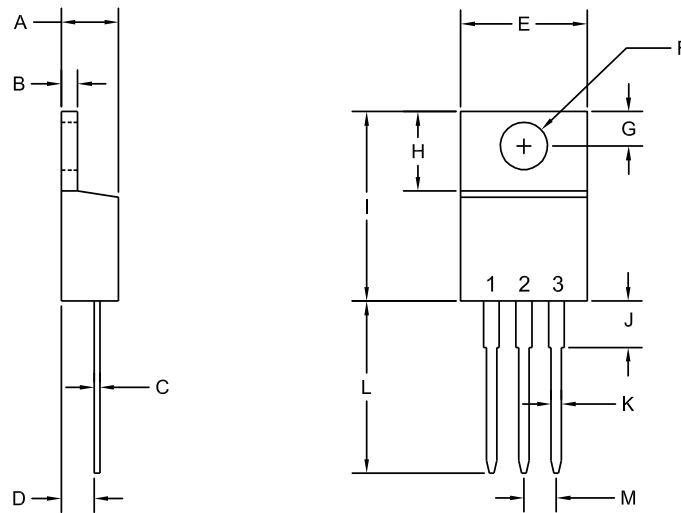
R1 (10-April 2013)

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



**COMPLEMENTARY  
 SILICON POWER TRANSISTORS**

**TO-220 CASE - MECHANICAL OUTLINE**



R2

**LEAD CODE:**

- 1) Base
- 2) Collector
- 3) Emitter
- Tab) Collector

**MARKING:  
 FULL PART NUMBER**

SYMBOL	INCHES		MILLIMETERS	
	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)

R1 (10-April 2013)

## OUTSTANDING SUPPORT AND SUPERIOR SERVICES



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### 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

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### 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

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