

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

COMPLEMENTARY
SILICON POWER TRANSISTORS



TO-220 CASE



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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)

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 2N6288	2N6109 2N6290	2N6107 2N6292	UNITS
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		°C
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

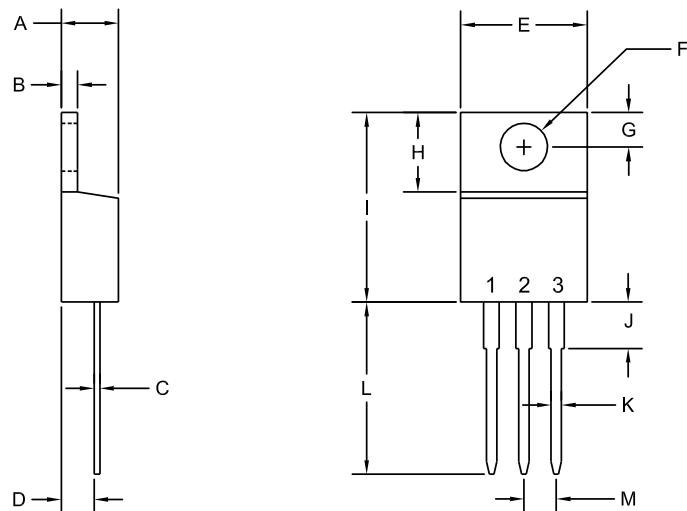
R1 (10-April 2013)

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TO-220 CASE - MECHANICAL OUTLINE



R2

LEAD CODE:

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

MARKING:
FULL PART NUMBER

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



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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Product End of Life Notification

PDN ID:	PDN01247
Notification Date:	9/01/22
Last Buy Date:	3/01/23
Last Shipment Date	9/01/23

Summary: The following transistors are discontinued and now classified as of End of Life (EOL).

Although Central Semiconductor Corp. makes every effort to continue to produce devices that have been proclaimed EOL (End of Life) by other manufacturers, it is an accepted industry practice to discontinue certain devices when customer demand falls below a minimum level of sustainability. Accordingly, the following product(s) have been transitioned to End of Life status as part of Central's ongoing Product Portfolio Management. Any replacement products are noted below. The effective date for placing last purchase orders will be six (6) months from the date of this notice and twelve (12) months from the notice date for final shipments, and minimum order quantities may apply. The last purchase and shipment dates may be extended if inventory is available.

*** All Plating types (PBFREE,TIN/LEAD) for each item listed are included in this notice.**

Central Part Number	Suggested Replacement
BCY79-VIII	N/A
CEN853	N/A
CZT32C BK	N/A
CZT32C TR	N/A
2N3583	N/A
2N3584	N/A
2N3585	N/A
2N3738	N/A
2N3740	N/A
2N3741	N/A
2N3741A	N/A
2N4299	N/A
2N4900	N/A
2N6107	N/A
2N6317	N/A
2N6318	N/A
2N6467	N/A
2N6468	N/A

Central would be happy to assist you by providing additional information or technical data to help locate an alternate source if we have no replacement available. If you would like assistance, please visit <https://my. centralesemi.com/submit-inquiry?type=ER> to submit an online inquiry.

DISCLAIMER: This End of Life (EOL) notification is in accordance with JEDEC standard JESD48 - Product Discontinuance. Central Semiconductor Corp. will make every effort to offer life-time buy (LTB) opportunities and/or offer replacement devices to existing customers for discontinued devices, however, one or both may not be possible for all devices. Please contact your local Central Semiconductor sales representative for LTB opportunities/additional information.