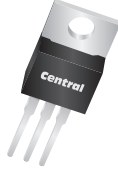


2N6486 2N6487 2N6488 NPN
2N6489 2N6490 2N6491 PNP

**COMPLEMENTARY SILICON
POWER TRANSISTORS**



TO-220 CASE



www.centralemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR 2N6486, 2N6489 series types are complementary silicon power transistors designed for general purpose switching and amplifier applications.

MARKING: FULL PART NUMBER

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

	SYMBOL	2N6486 2N6489	2N6487 2N6490	2N6488 2N6491	UNITS
Collector-Base Voltage	V_{CBO}	50	70	90	V
Collector-Emitter Voltage	V_{CEO}	40	60	80	V
Emitter-Base Voltage	V_{EBO}		5.0		V
Continuous Collector Current	I_C		15		A
Continuous Base Current	I_B		5.0		A
Power Dissipation	P_D		75		W
Power Dissipation ($T_A=25^\circ\text{C}$)	P_D		1.8		W
Operating and Storage Junction Temperature	T_J, T_{stg}		-65 to +150		$^\circ\text{C}$
Thermal Resistance	θ_{JC}		1.67		$^\circ\text{C/W}$

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

SYMBOL	TEST CONDITIONS	2N6486 2N6489		2N6487 2N6490		2N6488 2N6491		UNITS
		MIN	MAX	MIN	MAX	MIN	MAX	
I_{CEV}	$V_{CE}=45\text{V}, V_{EB}=1.5\text{V}$	-	500	-	-	-	-	μA
I_{CEV}	$V_{CE}=65\text{V}, V_{EB}=1.5\text{V}$	-	-	-	500	-	-	μA
I_{CEV}	$V_{CE}=85\text{V}, V_{EB}=1.5\text{V}$	-	-	-	-	-	500	μA
I_{CEO}	$V_{CE}=\frac{1}{2}$ Rated V_{CEO}	-	1.0	-	1.0	-	1.0	mA
I_{EBO}	$V_{EB}=5.0\text{V}$	-	1.0	-	1.0	-	1.0	mA
BV_{CEV}	$V_{BE}=1.5\text{V}, I_C=200\text{mA}$	50	-	70	-	90	-	V
BV_{CEO}	$I_C=200\text{mA}$	40	-	60	-	80	-	V
$V_{CE(SAT)}$	$I_C=5.0\text{A}, I_B=0.5\text{A}$	-	1.3	-	1.3	-	1.3	V
$V_{CE(SAT)}$	$I_C=15\text{A}, I_B=5.0\text{A}$	-	3.5	-	3.5	-	3.5	V
$V_{BE(ON)}$	$V_{CE}=4.0\text{V}, I_C=5.0\text{A}$	-	1.3	-	1.3	-	1.3	V
$V_{BE(ON)}$	$V_{CE}=4.0\text{V}, I_C=15\text{A}$	-	3.5	-	3.5	-	3.5	V
h_{FE}	$V_{CE}=4.0\text{V}, I_C=5.0\text{A}$	20	150	20	150	20	150	
h_{FE}	$V_{CE}=4.0\text{V}, I_C=15\text{A}$	5.0	-	5.0	-	5.0	-	
h_{fe}	$V_{CE}=4.0\text{V}, I_C=1.0\text{A}, f=1.0\text{kHz}$	25	-	25	-	25	-	
f_T	$V_{CE}=4.0\text{V}, I_C=1.0\text{A}, f=1.0\text{MHz}$	5.0	-	5.0	-	5.0	-	MHz

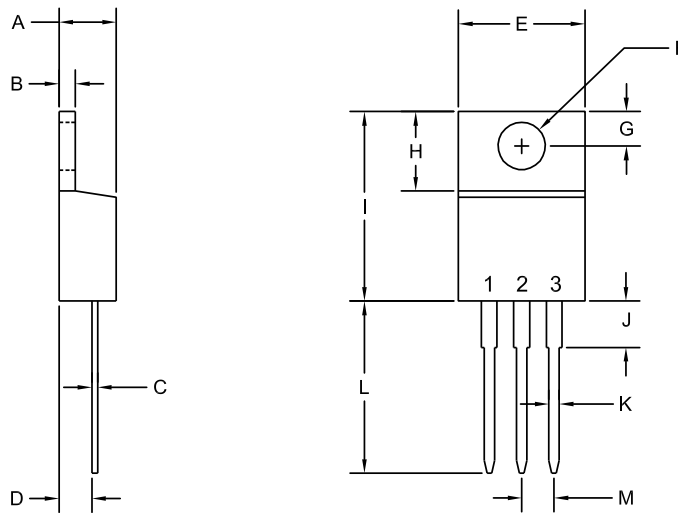
R1 (11-September 2012)

2N6486 2N6487 2N6488 NPN
 2N6489 2N6490 2N6491 PNP



**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	DIMENSIONS			
	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 (11-September 2012)

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).

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