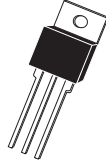


MJE15028 MJE15030 NPN
MJE15029 MJE15031 PNP

**COMPLEMENTARY SILICON
POWER TRANSISTORS**



TO-220 CASE

CentralTM
Semiconductor Corp.

DESCRIPTION:

The CENTRAL SEMICONDUCTOR MJE15028/MJE15029 Series types are Complementary Silicon Power Transistors designed for use in audio amplifier applications.

MARKING: FULL PART NUMBER

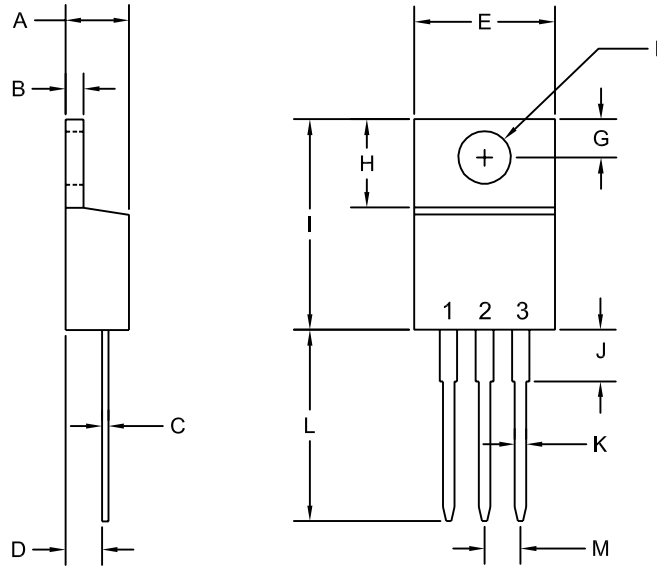
MAXIMUM RATINGS: ($T_A=25^\circ\text{C}$ unless otherwise noted)

	SYMBOL	MJE15028 MJE15029	MJE15030 MJE15031	UNITS
Collector-Base Voltage	V_{CBO}	120	150	V
Collector-Emitter Voltage	V_{CEO}	120	150	V
Emitter-Base Voltage	V_{EBO}		5.0	V
Continuous Collector Current	I_C		8.0	A
Peak Collector Current	I_{CM}		16	A
Base Current	I_B		2.0	A
Power Dissipation	P_D		2.0	W
Power Dissipation ($T_C=25^\circ\text{C}$)	P_D		50	W
Operating and Storage Junction Temperature	T_J, T_{stg}	-65 to +150		$^\circ\text{C}$
Thermal Resistance	θ_{JA}	62.5		$^\circ\text{C/W}$
Thermal Resistance	θ_{JC}	2.5		$^\circ\text{C/W}$

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

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
I_{CBO}	$V_{CB}=\text{Rated } V_{CBO}$		10	μA
I_{CEO}	$V_{CE}=\text{Rated } V_{CEO}$		100	μA
I_{EBO}	$V_{EB}=5.0\text{V}$		10	μA
BV_{CEO}	$I_C=10\text{mA}$ (MJE15028, MJE15029)	120		V
BV_{CEO}	$I_C=10\text{mA}$ (MJE15030, MJE15031)	150		V
$V_{CE(\text{SAT})}$	$I_C=1.0\text{A}, I_B=100\text{mA}$		0.5	V
$V_{BE(\text{ON})}$	$V_{CE}=2.0\text{V}, I_C=1.0\text{A}$		1.0	V
h_{FE}	$V_{CE}=2.0\text{V}, I_C=100\text{mA}$	40		
h_{FE}	$V_{CE}=2.0\text{V}, I_C=2.0\text{A}$	40		
h_{FE}	$V_{CE}=2.0\text{V}, I_C=3.0\text{A}$	40		
h_{FE}	$V_{CE}=2.0\text{V}, I_C=4.0\text{A}$	20		
f_T	$V_{CE}=10\text{V}, I_C=500\text{mA}, f=10\text{MHz}$	30		MHz

TO-220 CASE - MECHANICAL OUTLINE



R2

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)

LEAD CODE:

- 1) BASE
- 2) COLLECTOR
- 3) EMITTER
- TAB) COLLECTOR

MARKING:

FULL PART NUMBER

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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