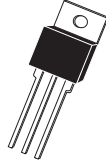


MJE15028 MJE15030 NPN  
MJE15029 MJE15031 PNP

**COMPLEMENTARY SILICON  
POWER TRANSISTORS**



**TO-220 CASE**

**Central**<sup>TM</sup>  
**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)

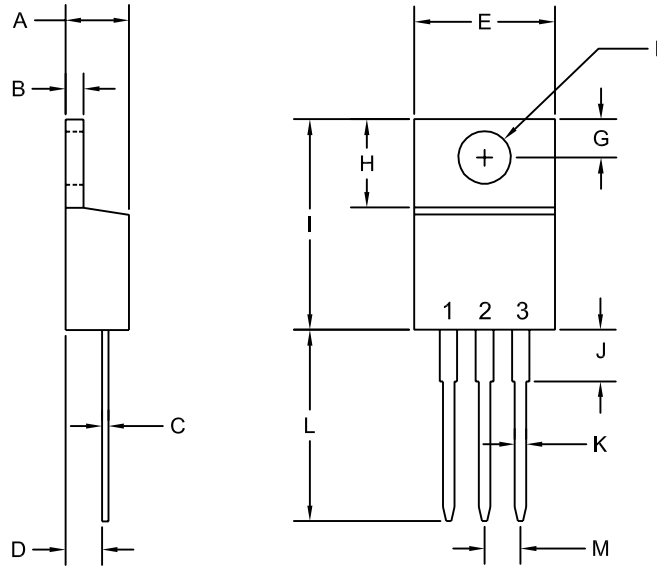
	SYMBOL	MJE15028 MJE15029	MJE15030 MJE15031	UNITS
Collector-Base Voltage	$V_{CBO}$	120	150	V
Collector-Emitter Voltage	$V_{CEO}$	120	150	V
Emitter-Base Voltage	$V_{EBO}$		5.0	V
Continuous Collector Current	$I_C$		8.0	A
Peak Collector Current	$I_{CM}$		16	A
Base Current	$I_B$		2.0	A
Power Dissipation	$P_D$		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	$\Theta_{JA}$	62.5		$^\circ\text{C/W}$
Thermal Resistance	$\Theta_{JC}$	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	$\mu\text{A}$
$I_{CEO}$	$V_{CE}=\text{Rated } V_{CEO}$		100	$\mu\text{A}$
$I_{EBO}$	$V_{EB}=5.0\text{V}$		10	$\mu\text{A}$
$BV_{CEO}$	$I_C=10\text{mA}$ (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

R0 (17-February 2009)

TO-220 CASE - MECHANICAL OUTLINE



R2

DIMENSIONS				
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)

**LEAD CODE:**

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

**MARKING:**

FULL PART NUMBER

R0 (17-February 2009)