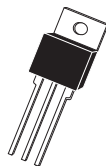


MJE15028 MJE15030 NPN
MJE15029 MJE15031 PNP

**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)

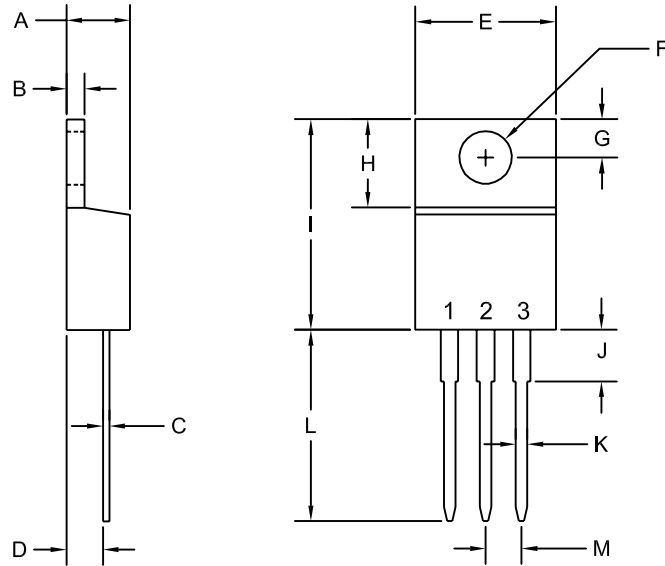
	SYMBOL	MJE15028 MJE15029	MJE15030 MJE15031	UNITS
Collector-Base Voltage	V_{CBO}	120	150	V
Collector-Emitter Voltage	V_{CEO}	120	150	V
Emitter-Base Voltage	V_{EBO}	5.0		V
Continuous Collector Current	I_C	8.0		A
Peak Collector Current	I_{CM}	16		A
Base Current	I_B	2.0		A
Power Dissipation	P_D	2.0		W
Power 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

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

LEAD CODE:

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

MARKING:

FULL PART NUMBER

TO-220 (REV: R2)

R0 (17-February 2009)