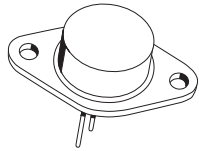


2N6031

PNP SILICON
POWER TRANSISTOR
140 VOLTS, 200 WATTS



TO-3 CASE

CentralTM
Semiconductor Corp.

DESCRIPTION:

The CENTRAL SEMICONDUCTOR 2N6031 is a 16 Ampere PNP Silicon Power Transistor designed for use in high power amplifiers and high voltage switching regulator circuits.

MARKING: FULL PART NUMBER

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

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

V_{CBO}	140
V_{CEO}	140
V_{EBO}	7.0
I_C	16
I_{CM}	20
I_B	5.0
P_D	200
T_J, T_{stg}	-65 to +200
θ_{JC}	0.875

UNITS

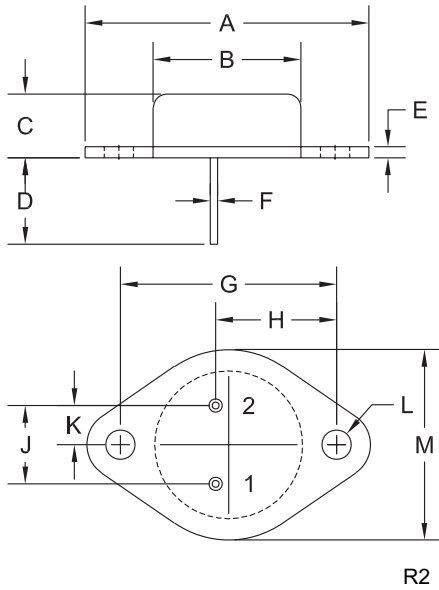
V
V
V
A
A
A
W
$^\circ\text{C}$
$^\circ\text{C/W}$

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

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
I_{CBO}	$V_{CB}=140\text{V}$		2.0	mA
I_{CEX}	$V_{CE}=140\text{V}, V_{EB(off)}=1.5\text{V}$		2.0	mA
I_{CEX}	$V_{CE}=140\text{V}, V_{EB(off)}=1.5\text{V}, T_C=150^\circ\text{C}$		7.0	mA
I_{CEO}	$V_{CE}=70\text{V}$		2.0	mA
I_{EBO}	$V_{EB}=7.0\text{V}$		5.0	mA
BV_{CEO}	$I_C=200\text{mA}$	140		V
$V_{CE(SAT)}$	$I_C=10\text{A}, I_B=1.0\text{A}$		1.0	V
$V_{CE(SAT)}$	$I_C=16\text{A}, I_B=4.0\text{A}$		2.0	V
$V_{BE(SAT)}$	$I_C=10\text{A}, I_B=1.0\text{A}$		1.8	V
$V_{BE(ON)}$	$V_{CE}=2.0\text{V}, I_C=8.0\text{A}$		1.5	V
h_{FE}	$V_{CE}=2.0\text{V}, I_C=8.0\text{A}$	15	60	
h_{FE}	$V_{CE}=2.0\text{V}, I_C=16\text{A}$	4.0		
f_T	$V_{CE}=20\text{V}, I_C=1.0\text{A}, f=500\text{kHz}$	1.0		MHz
C_{ob}	$V_{CB}=10\text{V}, I_E=0, f=100\text{kHz}$		1000	pF
h_{fe}	$V_{CE}=10\text{V}, I_C=4.0\text{A}, f=1.0\text{kHz}$	15		

R0 (27-August 2009)

TO-3 CASE - MECHANICAL OUTLINE



SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	1.516	1.573	38.50	39.96
B (DIA)	0.748	0.875	19.00	22.23
C	0.250	0.450	6.35	11.43
D	0.433	0.516	11.00	13.10
E	0.054	0.065	1.38	1.65
F	0.035	0.045	0.90	1.15
G	1.177	1.197	29.90	30.40
H	0.650	0.681	16.50	17.30
J	0.420	0.440	10.67	11.18
K	0.205	0.225	5.21	5.72
L (DIA)	0.151	0.172	3.84	4.36
M	0.984	1.050	25.00	26.67

TO-3 (REV: R2)

LEAD CODE:

- 1) BASE
- 2) EMITTER

CASE) COLLECTOR

MARKING: FULL PART NUMBER

Safe Operating Area

