

CentralTM Semiconductor Corp.

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Manufacturers of World Class Discrete Semiconductors

2N6211
2N6212
2N6213

PNP SILICON
POWER TRANSISTOR

JEDEC TO-66 CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR 2N6211 series types are PNP Silicon Power Transistors designed for high speed switching and high voltage amplifier applications.

MAXIMUM RATINGS (T_C = 25°C)

| | SYMBOL | 2N6211 | 2N6212 | 2N6213 | UNITS |
|---|-----------------------------------|--------|-------------|--------|-------|
| Collector-Base Voltage | V _{CBO} | 275 | 350 | 400 | V |
| Collector-Emitter Voltage | V _{CEO} | 225 | 300 | 350 | V |
| Emitter-Base Voltage | V _{EBO} | 6.0 | 6.0 | 6.0 | V |
| Collector Current | I _C | 2.0 | 2.0 | 2.0 | A |
| Peak Collector Current | I _{CM} | 5.0 | 5.0 | 5.0 | A |
| Base Current | I _B | 1.0 | 1.0 | 1.0 | A |
| Power Dissipation | P _D | 35 | 35 | 35 | W |
| Operating and Storage Junction Temperature | T _J , T _{stg} | | -65 to +200 | | °C |
| Thermal Resistance | θ _{JC} | 5.0 | 5.0 | 5.0 | °C/W |

ELECTRICAL CHARACTERISTICS (T_C = 25°C unless otherwise noted)

| SYMBOL | TEST CONDITIONS | 2N6211 | | 2N6212 | | 2N6213 | | UNITS |
|----------------------|---|--------|-----|--------|-----|--------|-----|-------|
| | | MIN | MAX | MIN | MAX | MIN | MAX | |
| I _{CEV} | V _{CE} = 250V, V _{BE(off)} = 1.5V | | 0.5 | | | | | mA |
| I _{CEV} | V _{CE} = 315V, V _{BE(off)} = 1.5V | | | | 0.5 | | | mA |
| I _{CEV} | V _{CE} = 360V, V _{BE(off)} = 1.5V | | | | | | 0.5 | mA |
| I _{CEV} | V _{CE} = 250V, V _{BE(off)} = 1.5V, T _C = 100°C | | 5.0 | | | | | mA |
| I _{CEV} | V _{CE} = 315V, V _{BE(off)} = 1.5V, T _C = 100°C | | | | 5.0 | | | mA |
| I _{CEV} | V _{CE} = 360V, V _{BE(off)} = 1.5V, T _C = 100°C | | | | | | 5.0 | mA |
| I _{CEO} | V _{CE} = 150V | | 5.0 | | 5.0 | | 5.0 | mA |
| I _{EBO} | V _{EB} = 6.0V | | 1.0 | | 0.5 | | 0.5 | mA |
| BV _{CEV} | I _C = 50mA, V _{BE} = 1.5V, L = 10mH | 275 | | 350 | | 400 | | V |
| BV _{CER} | I _C = 50mA, R _{BE} = 50Ω | 250 | | 325 | | 375 | | V |
| BV _{CEO} | I _C = 50mA | 225 | | 300 | | 350 | | V |
| BV _{EBO} | I _E = 1.0mA | 6.0 | | | | | | V |
| BV _{EBO} | I _E = 0.5mA | | | 6.0 | | 6.0 | | V |
| V _{CE(SAT)} | I _C = 1.0A, I _B = 125mA | | 1.4 | | 1.6 | | 2.0 | V |
| V _{BE(SAT)} | I _C = 1.0A, I _B = 125mA | | 1.4 | | 1.4 | | 1.4 | V |
| h _{FE} | V _{CE} = 2.8V, I _C = 1.0A | 10 | 100 | | | | | |
| h _{FE} | V _{CE} = 3.2V, I _C = 1.0A | | | 10 | 100 | | | |
| h _{FE} | V _{CE} = 4.0V, I _C = 1.0A | | | | | 10 | 100 | |

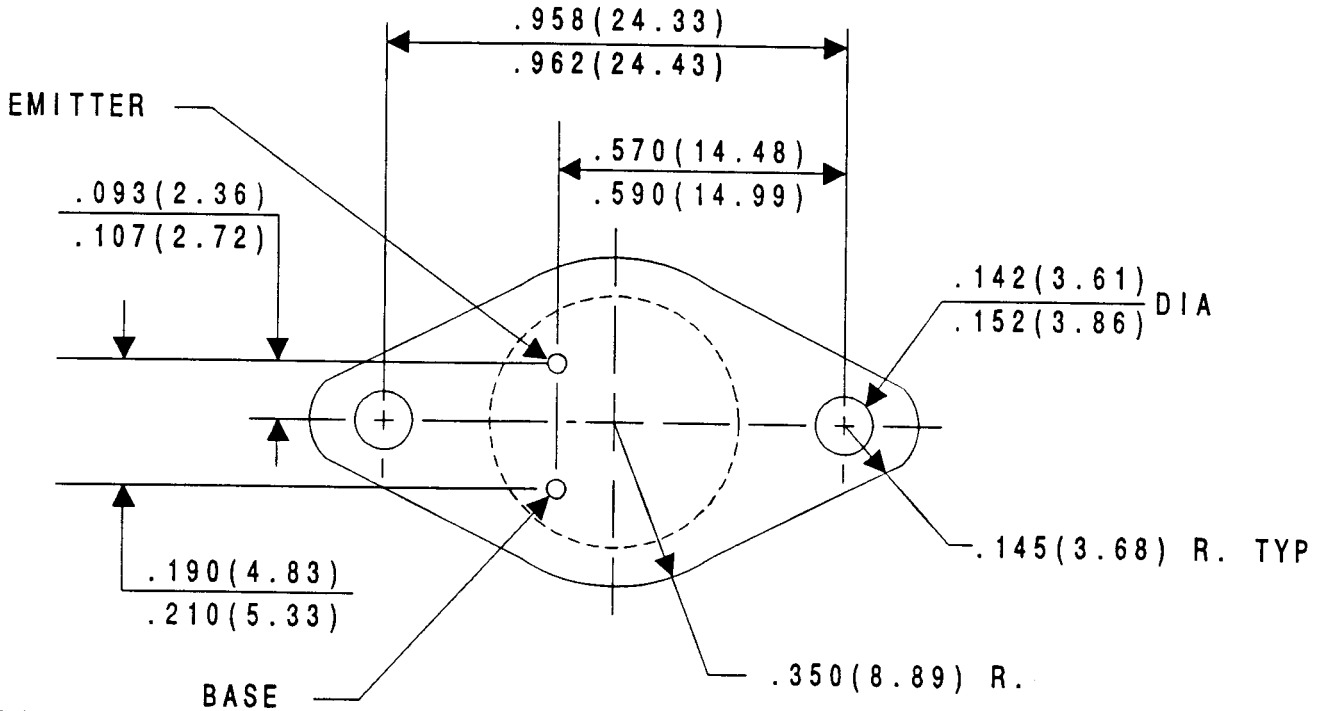
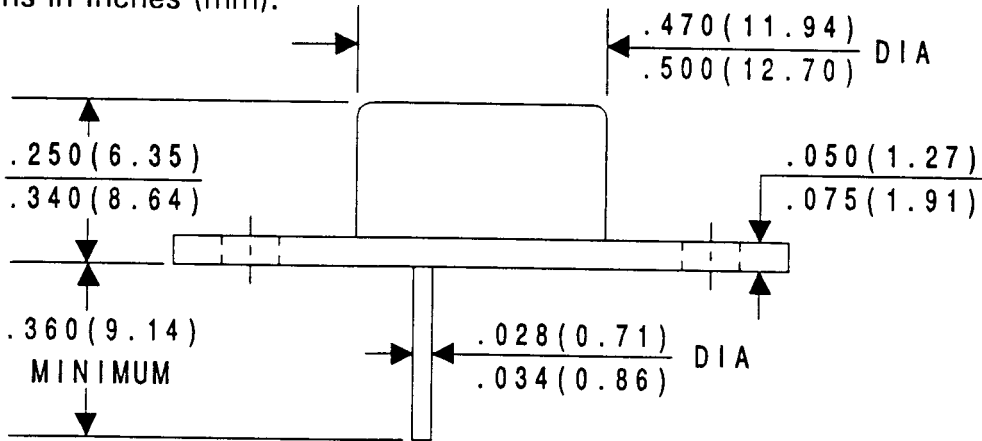
(CONTINUED ON REVERSE SIDE)

ELECTRICAL CHARACTERISTICS (CONTINUED)

| SYMBOL | TEST CONDITIONS | 2N6211 | | 2N6212 | | 2N6213 | | UNITS |
|-----------|--|--------|-----|--------|-----|--------|-----|---------|
| | | MIN | MAX | MIN | MAX | MIN | MAX | |
| f_T | $V_{CE}=10V, I_C=200mA, f=5.0MHz$ | 20 | | 20 | | 20 | | MHz |
| C_{ob} | $V_{CB}=10V, I_E=0, f=1.0MHz$ | | 220 | | 220 | | 220 | pF |
| t_r | $V_{CC}=200V, I_C=1.0A, I_{B1}=I_{B2}=125mA$ | | 0.6 | | 0.6 | | 0.6 | μs |
| t_s | $V_{CC}=200V, I_C=1.0A, I_{B1}=I_{B2}=125mA$ | | 2.5 | | 2.5 | | 2.5 | μs |
| t_f | $V_{CC}=200V, I_C=1.0A, I_{B1}=I_{B2}=125mA$ | | 0.6 | | 0.6 | | 0.6 | μs |
| $I_{S/b}$ | $V_{CE}=40V, t=1.0s$ | 875 | | 875 | | 875 | | mA |

TO-66 CASE - MECHANICAL OUTLINE

All Dimensions in Inches (mm).



This datasheet has been download from:

www.datasheetcatalog.com

Datasheets for electronics components.