

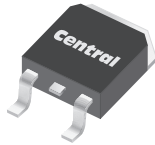
CJD41C NPN
CJD42C PNP

**SURFACE MOUNT SILICON
COMPLEMENTARY
POWER TRANSISTORS**



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**DPAK
POWER!**



DPAK CASE

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CJD41C and CJD42C are complementary silicon power transistors manufactured by the epitaxial base process, mounted in a surface mount package, and designed for power amplifier and high speed switching applications.

MARKING: FULL PART NUMBER

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

| | SYMBOL | | UNITS |
|--|----------------|-------------|--------------------|
| Collector-Base Voltage | V_{CBO} | 100 | V |
| Collector-Emitter Voltage | V_{CEO} | 100 | V |
| Emitter-Base Voltage | V_{EBO} | 5.0 | V |
| Continuous Collector Current | I_C | 6.0 | A |
| Peak Collector Current | I_{CM} | 10 | A |
| Continuous Base Current | I_B | 2.0 | A |
| Power Dissipation | P_D | 20 | W |
| Power Dissipation ($T_A=25^\circ\text{C}$) | P_D | 1.75 | W |
| Operating and Storage Junction Temperature | T_J, T_{stg} | -65 to +150 | $^\circ\text{C}$ |
| Thermal Resistance | θ_{JC} | 6.25 | $^\circ\text{C/W}$ |
| Thermal Resistance | θ_{JA} | 71.4 | $^\circ\text{C/W}$ |

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

| SYMBOL | TEST CONDITIONS | MIN | MAX | UNITS |
|---------------|--|-----|-----|---------------|
| I_{CEO} | $V_{CE}=60\text{V}$ | | 50 | μA |
| I_{CES} | $V_{CE}=100\text{V}$ | | 10 | μA |
| I_{EBO} | $V_{EB}=5.0\text{V}$ | | 500 | μA |
| BV_{CEO} | $I_C=30\text{mA}$ | 100 | | V |
| $V_{CE(SAT)}$ | $I_C=6.0\text{A}, I_B=600\text{mA}$ | | 1.5 | V |
| $V_{BE(ON)}$ | $V_{CE}=4.0\text{V}, I_C=6.0\text{A}$ | | 2.0 | V |
| h_{FE} | $V_{CE}=4.0\text{V}, I_C=300\text{mA}$ | 30 | | |
| h_{FE} | $V_{CE}=4.0\text{V}, I_C=3.0\text{A}$ | 15 | 75 | |
| f_T | $V_{CE}=10\text{V}, I_C=500\text{mA}, f=1.0\text{MHz}$ | 3.0 | | MHz |
| h_{fe} | $V_{CE}=10\text{V}, I_C=500\text{mA}, f=1.0\text{kHz}$ | 20 | | |

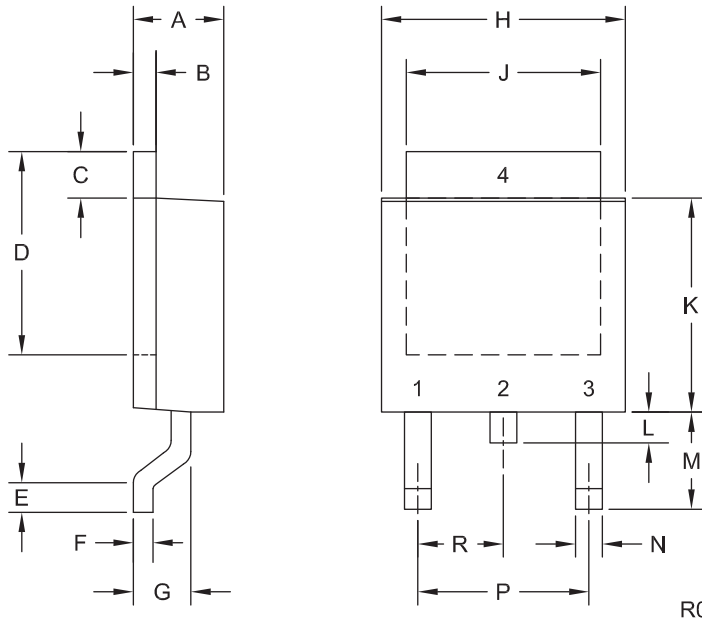
R3 (21-January 2013)

CJD41C NPN
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DPAK CASE - MECHANICAL OUTLINE



LEAD CODE:

- 1) Base
- 2) Collector
- 3) Emitter
- 4) Collector

MARKING:

FULL PART NUMBER

| DIMENSIONS | | | | |
|------------|--------|-------|-------------|------|
| SYMBOL | INCHES | | MILLIMETERS | |
| | MIN | MAX | MIN | MAX |
| A | 0.083 | 0.108 | 2.10 | 2.75 |
| B | 0.016 | 0.032 | 0.40 | 0.81 |
| C | 0.035 | 0.063 | 0.89 | 1.60 |
| D | 0.203 | 0.228 | 5.15 | 5.79 |
| E | 0.020 | - | 0.51 | - |
| F | 0.018 | 0.024 | 0.45 | 0.60 |
| G | 0.051 | 0.071 | 1.30 | 1.80 |
| H | 0.248 | 0.268 | 6.30 | 6.81 |
| J | 0.197 | 0.217 | 5.00 | 5.50 |
| K | 0.209 | 0.245 | 5.30 | 6.22 |
| L | 0.025 | 0.040 | 0.64 | 1.02 |
| M | 0.090 | 0.115 | 2.30 | 2.91 |
| N | 0.012 | 0.045 | 0.30 | 1.14 |
| P | 0.180 | | 4.60 | |
| R | 0.090 | | 2.30 | |

DPAK (REV: R0)

R3 (21-January 2013)