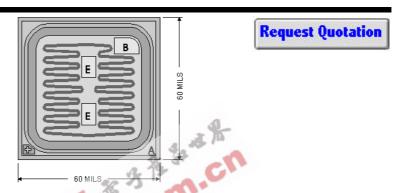


Data Sheet No. 2C3506

Chip Type 2C3506 Geometry 1506 Polarity NPN

Generic Packaged Parts:

2N3506, 2N3507



Chip type **2C3506** by Semicoa Semiconductors provides performance similar to these devices.

## **Part Numbers:**

2N3506, 2N3506L, 2N3507, 2N3507L

## **Product Summary:**

**APPLICATIONS:** Designed for high current, high speed saturated switching and core driver applications.

## Features:

High current and high speed capability

| Mechanical Specifications |                   |                      |  |  |  |
|---------------------------|-------------------|----------------------|--|--|--|
| Metallization             | Тор               | AI - 22 kÅ min.      |  |  |  |
|                           | Backside          | Au - 6.5 kÅ nom.     |  |  |  |
| Bonding Pad Size          | Emitter           | 9.0 mils x 6.0 mils  |  |  |  |
|                           | Base              | 7.0 mils x 11.0 mils |  |  |  |
| Die Thickness             | 8 mils nominal    |                      |  |  |  |
| Chip Area                 | 60 mils x 60 mils |                      |  |  |  |
| Top Surface               | Silox Passivated  |                      |  |  |  |

## **Electrical Characteristics**

$$T_A = 25^{\circ}C$$

| Parameter         | Test conditions                                     | Min | Max | Unit |
|-------------------|---|-----|-----|------|
| BV <sub>CEO</sub> | $I_{\rm C} = 10 \text{ mA}, I_{\rm B} = 0$          | 40  |     | V dc |
| $BV_{CBO}$        | $I_{\rm C} = 100  \mu \text{A},  I_{\rm E} = 0$     | 60  |     | V dc |
| $BV_{EBO}$        | $I_E = 10 \mu A, I_C = 0$                           | 5.0 |     | V dc |
| h <sub>FE</sub>   | $I_{C} = 500 \text{ mA dc}, V_{CE} = 1.0 \text{ V}$ | 50  |     |      |

Due to limitations of probe testing, only dc parameters are tested. This must be done with pulse width less than 300 µs, duty cycle less than 2%.