## Description

The BPP1N5004D is a high voltage 1－Phase IPM （Intelligent Power Module）．It integrates HVIC and high－performance MOSFET for BLDC and PMSM motors．Separate Open－Source Pins from Low－Side MOSFETs are for Current－Sensing．

The input works with Schmitt－trigger and the logic voltage level is compatible with $3.3 \mathrm{~V} / 5 \mathrm{~V} / 15 \mathrm{~V}$ signal． UVLO and dead time are also provided．

## Features

■ Built－in high－performance $500 \mathrm{~V} / 4 \mathrm{~A}$ MOSFET
－Robust at negative transient voltage
－Gate drive supply range from 10 V to 20 V
－ $3.3 \mathrm{~V}, 5 \mathrm{~V}$ and 15 V input logic compatible
－UVLO for both high side and low side
－Built－in dead time to avoid cross－conduction
－Available in DIP8 package

## Typical Application



Figure 1．Typical application circuit for BPP1N5004D

## Ordering Information

| Part Number | Package | Operation <br> Temperature | Package Method | Marking |
| :---: | :---: | :---: | :---: | :---: |
| BPP1N5004D | DIP 8 | $-40{ }^{\circ} \mathrm{C}$ to $105{ }^{\circ} \mathrm{C}$ | Tube | BPP1N5004D |
| $50 \mathrm{pcs} /$ tube | XXXXXAX |  |  |  |
| C1ETWWY |  |  |  |  |

## Pin Configuration and Marking Information



XXXXX：lot code
A：assembly house
X：Special string
C：fab cord
1：generation
ET：MOS cord
WW：week
Y：special string

Figure 2．Pin configuration

## Pin Definition

| Pin No． | Name | Description |
| :---: | :---: | :--- |
| 1 | VCC | Logic and low side MOSFET driving supply |
| 2 | HIN | Logic input for high side |
| 3 | LIN | Logic input for low side |
| 4 | COM | Logic common ground |
| 5 | N | Negative reference and low side MOSFET return |
| 6 | VS | Output and high side MOSFET return |
| 7 | P | Positive high voltage DC Power supply |
| 8 | VB | High side MOSFET driving supply |

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