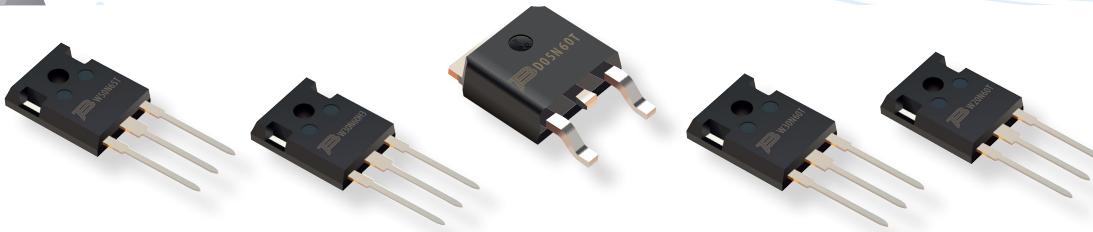




# NEW PRODUCT RELEASE

## CIRCUIT PROTECTION

### ADVANCE NOTICE



## Bourns Announces the Release of the Insulated Gate Bipolar Transistor (IGBT) Discrete Solution

### Model BID Series

Riverside, California – TO BE RELEASED AUGUST 5, 2022 – Bourns, Inc., a leading manufacturer and supplier of electronic components, is pleased to introduce the Model BID Series Insulated Gate Bipolar Transistor (IGBT) Discrete Solution. By combining technology from a MOSFET gate and a bipolar transistor, the Bourns® IGBT Discrete BID Series creates a component designed for high voltage and high current applications. This device uses advanced Trench-Gate Field-Stop technology to provide greater control of the dynamic characteristics, which, in turn, results in a lower Collector-Emitter Saturation Voltage ( $V_{CE(sat)}$ ) and fewer switching losses. In addition, due to the thermally efficient TO-252, TO-247 and TO-247N packages, the devices can provide a lower thermal resistance  $R_{th(j-c)}$ , making them suitable IGBT solutions for Switch-Mode Power Supplies (SMPS), Uninterruptible Power Sources (UPS), and Power Factor Correction (PFC) applications.

The material characteristics of the devices, their features and potential applications are provided below\*.

Model	Photo	Package	Feature	$V_{CES}$ (V)	$I_C$ @ $T=100\text{ }^\circ\text{C}$ (A)	Typ. $V_{CE(sat)}$ @ $I_C, V_{ge}=15\text{ V}$ (V)	$I_F$ @ $T=100\text{ }^\circ\text{C}$ (A)	Operating Junction Temperature
<b>BIDD05N60T</b>		TO-252	Medium Speed	600	5	1.5	—	-55 °C to +150 °C
<b>BIDW20N60T</b>		TO-247	Medium Speed	600	20	1.7	20	-55 °C to +150 °C
<b>BIDW30N60T</b>		TO-247	Medium Speed	600	30	1.65	30	-55 °C to +150 °C
<b>BIDW50N65T</b>		TO-247	Medium Speed	650	50	1.65	50	-55 °C to +150 °C
<b>BIDNW30N60H3</b>		TO-247N	High Speed	600	30	1.65	12	-55 °C to +150 °C

\* $T_C = 25\text{ }^\circ\text{C}$  Unless otherwise specified

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## Model BIDD05N60T

### Features

- 600 V, 5 A, low Collector-Emitter Saturation Voltage ( $V_{CE(sat)}$ )
- Trench-Gate Field-Stop technology
- Optimized for conduction
- Robust
- RoHS compliant\*

### Applications

- SMPS
- UPS
- PFC

## Model BIDW30N60T

### Features

- 600 V, 30 A, low Collector-Emitter Saturation Voltage ( $V_{CE(sat)}$ )
- Trench-Gate Field-Stop technology
- Optimized for conduction
- RoHS compliant\*

### Applications

- SMPS
- UPS
- PFC
- Induction heating

## Model BIDNW30N60H3

### Features

- 600 V, 30 A, low Collector-Emitter Saturation Voltage ( $V_{CE(sat)}$ )
- Trench-Gate Field-Stop technology
- Low switching loss
- Fast switching
- RoHS compliant\*

### Applications

- SMPS
- UPS
- PFC
- Induction heating

## Model BIDW20N60T

### Features

- 600 V, 20 A, low Collector-Emitter Saturation Voltage ( $V_{CE(sat)}$ )
- Trench-Gate Field-Stop technology
- Optimized for conduction
- Low switching loss
- RoHS compliant\*

### Applications

- SMPS
- UPS
- PFC
- Stepper motors

## Model BIDW50N65T

### Features

- 600 V, 50 A, low Collector-Emitter Saturation Voltage ( $V_{CE(sat)}$ )
- Trench-Gate Field-Stop technology
- Optimized for conduction
- RoHS compliant\*

### Applications

- SMPS
- UPS
- PFC
- Inverters

Product data sheets with detailed specifications can be viewed on the Bourns website at [www.bourns.com](http://www.bourns.com).

If you have questions or need additional information, please feel free to contact Bourns Customer Service / Inside Sales.