

Ultra Field Stop IGBT

LEADING TECHNOLOGY FOR 1200V INDUSTRIAL APPLICATIONS

The new proprietary Ultra Field Stop technology along with the optimized fast recovery diodes offer a perfect balance between V_{CEsat} and ETS, resulting in reduced switching losses and enhanced power efficiency in hard switching applications, across a broad range of switching frequencies.

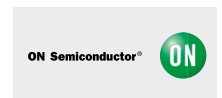
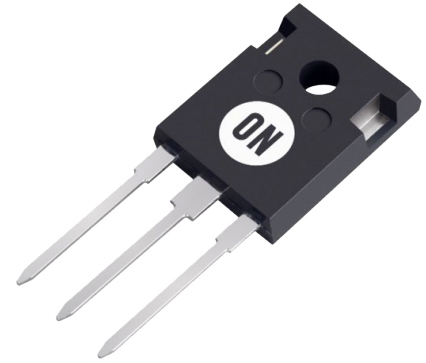
The Insulated Gate Bipolar Transistors (IGBT) are designed to deliver elevated levels of operational performance in order to meet the exacting demands of modern switching applications. These 1200 volt (V) devices are able to achieve industry-leading total switching loss (ETS) characteristics; the remarkable improvement in performance is attributable in part to a very wide highly activated field-stop layer & optimized co-pack diode.

The NGTB40N120L3WG is optimized for low conduction losses and has a V_{CEsat} of 1.55 V, at rated current, with an ETS of 3 mJ. The new Ultra Field Stop products are co-packaged with a fast recovery diode that has soft turn-off characteristics and still offers minimal reverse recovery losses.

The NGTB25N120FL3WG and NGTB40N120FL3WG are highly suitable for use in Uninterruptible Power Supplies (UPS) and solar inverters, whereas the NGTB40N120L3WG is mainly targeted at use in motor drives.

FEATURES

- Extremely Efficient Trench with Ultra Field Stop Technology
- $T_{Jmax} = 175\text{ }^{\circ}\text{C}$
- Soft Fast Reverse Recovery Diode
- Optimized for High Speed Switching



APPLICATIONS END PRODUCTS

- Solar Inverter
- Industrial
- Uninterruptible Power Inverter Supplies (UPS)
- Welding
- Motor Control

Part	Voltage	Current 100 °C	Pkg	Description	V_{CEsat} @ 25 °C	ETS @ 25 °C
NGTB40N120FL3WG	1200 V	40 A	TO 247	Fast Switching	1.7 V	2.7 mJ
NGTB40N120L3WG	1200 V	40 A	TO 247	Low V_{CEsat}	1.55 V	3 mJ
NGTB25N120FL3WG	1200 V	40 A	TO 247	Fast Switching	1.7 V	1.7 mJ

All trademarks and logos are the property of their respective owners. This document provides a brief overview only, no binding offers are intended. No guarantee as to the accuracy or completeness of any information. All information is subject to change, modifications and amendments without notice.