



## BACKGROUND

SICAMORE SEMI, (SiCamore Semiconductor, Incorporated) based in Bend, Oregon, is a US based and US owned pure play foundry for advanced materials and power semiconductors. With over 35 years of manufacturing experience, our mission is to deliver innovative semiconductor solutions and superior services, through the development of Silicon & wide bandgap technologies (also known as III-V Semiconductors), related to Silicon Carbide (SiC), Photonics, and Gallium Nitride (GaN). Our goal is to be a leading facility in the United States for advanced secure and trusted semiconductor device fabrication, prototyping, integration, testing and packaging. Additionally, the company looks to provide trustworthy components for applications within the US military, intelligence, and other government agencies, as well for our critical commercial utilities, transportation, EV's, telecommunications, aerospace, and healthcare infrastructure. We are ROHS compliant, ISO9001-2015 Certified, and ITAR Registered.

The roots of SiCamore Semi stretch back to 1985 when the Bend, OR. facility was established by Advanced Power Technology (APT) for the manufacture of 100mm wafers for their high power and high frequency switching products. In 2006, recognizing the need for the development of silicon carbide (SiC) and its ability to reduce weight and size of power control, management systems and their associated support equipment, in particular cooling systems and heat dispersing packaging. APT entered into a license agreement for silicon carbide (SiC) technology from the Electronic Systems' sector of Northrop Grumman Corp. Also, in 2006, citing APT's silicon carbide strategy and capabilities as an important element in their decision, Microsemi Corporation announced its acquisition of APT. In 2018, Microchip Technology acquires Microsemi Corporation and subsequently spins off the Bend facility becoming SiCamore Semi. – retaining the history, technology, people, and drive to move forward.

## TECHNOLOGY

Sicamore Semi technology is primarily focused on using Silicon and Silicon Carbide followed by Gallium Nitride and Photonics for high power devices. As noted below, Sicamore process technology starts at 600V but is predominately focused on customer designs from 1.2KV and up for the Electric Vehicles, Electric Buses, Trucks, Trains, Grid, Charging Stations, Jet Engines, Rockets, Rail Guns, Heavy Industrial Equipment, Space, Satellites, and much more.





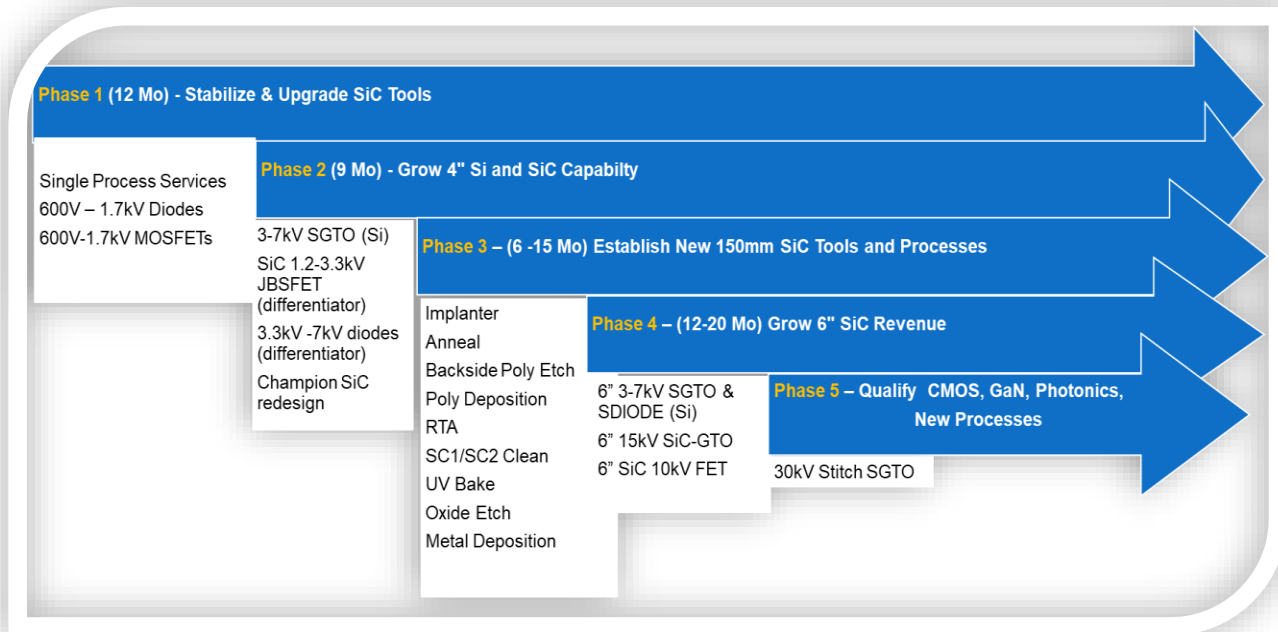
In 2020 Sicamore accomplished the following power device products:

- SiC Diodes: 600V – 1.7KV
- SiC MOSFET: 600V – 1.7KV
- Si Vertical DMOS, CMOS, & Bipolar devices
- 3.3KV SiC JBS Diode & MOSFET
- 3.3KV SiC JBSFET: Development work completed
- High power module assembly using these SiC 3.3KV & X 2 devices Form 6.6KV
- Fast/power GaN devices
- Solar blind photo detectors using our AlGaIn/GaN process
- Established 3KV, 4KV and 7KV SGTO process. Design Partners: SGTO & IGBT devices.

## OUR FOUNDRY & EQUIPMENT ROADMAP

The SiCamore Semi (Bend, OR) manufacturing site comprises 46,000ft<sup>2</sup> (4,275m<sup>2</sup>) of which 14,000ft<sup>2</sup> (1,300m<sup>2</sup>) is a facilitated Class 1000 (ISO 6) cleanroom. An additional 6,000ft<sup>2</sup> (550m<sup>2</sup>) of cleanroom is dedicated to our Gold Fabrication Processing Line. Monthly wafer capacity dependent:

- 4" (100mm) Silicon: 4,500WPM Total
- 4" (100mm) Silicon Carbide: up to 3,000WPM (of 4500 WPM)
- 6" (150mm) Silicon: 1,200WPM
- 4" (100mm) Au Fab (Si, SiC, GaN): 1,500 Additional WPM
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Let us discuss more . . . Thank you!