

n-Type SiC and SiC Epitaxy



Keeping Pace with the World's Demand for SiC Power

INDUSTRY-LEADING FLEXIBILITY AND SCALE

With more than 30 years of SiC development and manufacturing experience, Wolfspeed produces with the industry's broadest range of SiC and GaN on SiC materials. Offering n-type substrates and a variety of SiC epitaxy options up to 150mm diameter, Wolfspeed delivers the quality and quantity necessary to support the rapidly expanding demand for high-efficiency SiC power semiconductors.

When you partner with Wolfspeed, you get the best and most innovative materials

MATERIALS PORTFOLIO

Polytype	Surface Orientation	Supported Diameters	SiC Epitaxy
4H	4° Off-axis	100 mm	n-type
		150 mm	p-type
			Thick epitaxy

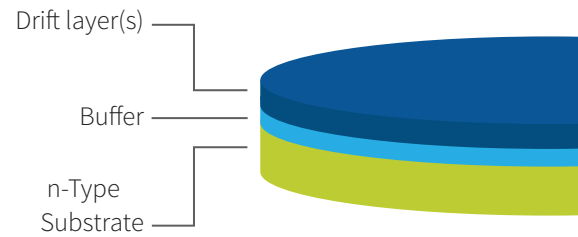
Learn how Wolfspeed can revolutionize your designs at wolfspeed.com/materials or contact us at materials_sales@wolfspeed.com or +1.919.287.7888.

n-TYPE SiC SUBSTRATE PRODUCT DESCRIPTIONS

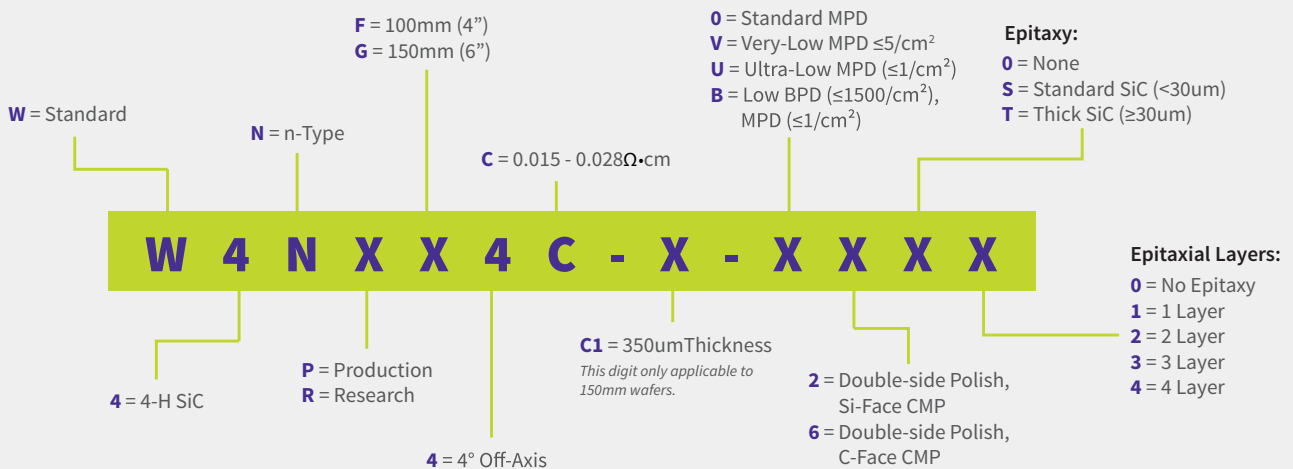
Part Number	Description
W4NRF4C-V200	4H-SiC, n-type, Research Grade, 100mm, 4° Off-Axis, 0.015-0.028 ohm-cm, Very Low MPD $\leq 5/\text{cm}^2$, 350um Thick w/ 32.5mm Flat, Double-Sided Polish Si Face CMP Epi Ready, Bare Substrate
W4NPF4C-V200	4H-SiC, n-type, Production Grade, 100mm, 4° Off-Axis, 0.015-0.028 ohm-cm, Very Low MPD $\leq 5/\text{cm}^2$, 350um Thick w/ 32.5mm Flat, Double-Sided Polish Si Face CMP Epi Ready, Bare Substrate
W4NRF4C-U200	4H-SiC, n-type, Research Grade, 100mm, 4° Off-Axis, 0.015-0.028 ohm-cm, Ultra Low MPD $\leq 1/\text{cm}^2$, 350um Thick w/ 32.5mm Flat, Double-Sided Polish Si Face CMP Epi Ready, Bare Substrate
W4NPF4C-U200	4H-SiC, n-type, Production Grade, 100mm, 4° Off-Axis, 0.015-0.028 ohm-cm, Ultra Low MPD $\leq 1/\text{cm}^2$, 350um Thick, w/ 32.5mm Flat Double-Sided Polish Si Face CMP Epi Ready, Bare Substrate
W4NPF4C-B200	4H-SiC, n-type, Production Grade, 100mm, 4° Off-Axis, 0.015-0.028 ohm-cm, Ultra Low MPD $\leq 1/\text{cm}^2$, Low BPD $\leq 1500/\text{cm}^2$, 350um Thick w/ 32.5mm Flat, Double-Sided Polish Si Face CMP Epi Ready, Bare Substrate
W4NRG4C-C1-V200	4H-SiC, n-type, Research Grade, 150mm, 4° Off-Axis, 0.015-0.028 ohm-cm, Very Low MPD $\leq 5/\text{cm}^2$, 350um Thick w/ 47.5mm Flat, Double-Sided Polish Si Face CMP Epi Ready, Bare Substrate
W4NPG4C-C1-V200	4H-SiC, n-type, Production Grade, 150mm, 4° Off-Axis, 0.015-0.028 ohm-cm, Very Low MPD $\leq 5/\text{cm}^2$, 350um Thick w/ 47.5mm Flat, Double-Sided Polish Si Face CMP Epi Ready, Bare Substrate
W4NRG4C-C1-U200	4H-SiC, n-type, Research Grade, 150mm, 4° Off-Axis, 0.015-0.028 ohm-cm, Ultra Low MPD $\leq 1/\text{cm}^2$, 350um Thick w/ 47.5mm Flat, Double-Sided Polish Si Face CMP Epi Ready, Bare Substrate
W4NPG4C-C1-U200	4H-SiC, n-type, Production Grade, 150mm, 4° Off-Axis, 0.015-0.028 ohm-cm, Ultra Low MPD $\leq 1/\text{cm}^2$, 350um Thick w/ 47.5mm Flat, Double-Sided Polish Si Face CMP Epi Ready, Bare Substrate
W4NPG4C-C1-B200	4H-SiC, n-type, Production Grade, 150mm, 4° Off-Axis, 0.015-0.028 ohm-cm, Ultra Low MPD $\leq 1/\text{cm}^2$, Low BPD $\leq 1500/\text{cm}^2$, 350um Thick w/ 47.5mm Flat, Double-Sided Polish Si Face CMP Epi Ready, Bare Substrate

SiC EPITAXY TYPICAL LAYER OPTIONS

Conductivity	n-type		p-type
	Si face	C face	Si face
Deposition			
Net doping density	5E14 – 1E19/cm ³	1E16 – 1E19/cm ³	5E14 – 1E20/cm ³
Thickness	0.2–200 microns	0.2–10.0 microns	0.2–200 microns



How to Order



Learn how Wolfspeed can revolutionize your designs at wolfspeed.com/materials or contact us at materials_sales@wolfspeed.com or +1.919.287.7888.

Our materials are ISO-TS 16949 certified. The information in this document is subject to change without notice. Document revised August 16, 2019. © 2019 Cree, Inc. All rights reserved. Wolfspeed™ and the Wolfspeed logo are trademarks of Cree, Inc.

