As filed with the Securities and Exchange Commission on September 11, 2025

Registration No. 333-

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM S-8
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

GLOBALFOUNDRIES Inc.
(Exact name of registrant as specified in its charter)

Cayman Islands	**3674**	**98-0604079**
(State or other jurisdiction of incorporation or organization)	**(Primary Standard Industrial Classification Code Number)**	**(I.R.S. Employer Identification Number)**

400 Stonebreak Road Extension
Malta, New York 12020
(518) 305-9013
(Address of principal executive offices, including zip code)

GlobalFoundries Inc. 2021 Equity Compensation Plan
GlobalFoundries Inc. 2021 Employee Stock Purchase Plan
(Full title of the plan)

Corporation Service Company
251 Little Falls Drive
Wilmington, DE 19808
(800) 927-9801
(Name, address and telephone number, including area code, of agent for service)

Copies to:

Adam Fleisher, Esq.
Michael J. Albano, Esq.
Shuangjun Wang, Esq.
Cleary Gottlieb Steen & Hamilton LLP
One Liberty Plaza
New York, New York 10006
(212) 225-2000

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	☒	Accelerated filer	☐
Non-accelerated filer	☐	Smaller reporting company	☐
		Emerging growth company	☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act. ☐

REGISTRATION OF ADDITIONAL SHARES
PURSUANT TO GENERAL INSTRUCTION E OF FORM S-8

EXPLANATORY NOTE

Pursuant to General Instruction E of Form S-8, GLOBALFOUNDRIES Inc., an exempted company incorporated in the Cayman Islands with limited liability (the "**Registrant**"), is filing this Registration Statement with the Securities and Exchange Commission (the "**Commission**") to register (i) 13,901,262 ordinary shares of the Registrant, $0.02 par value per ordinary share, (the "**Ordinary Shares**") issuable to eligible employees, non-employee directors, consultants, and advisors of the Registrant under the GlobalFoundries Inc. 2021 Equity Compensation Plan (the "**Equity Compensation Plan**"), which includes 10,376,868 additional Ordinary Shares that have been reserved for issuance pursuant to an annual "evergreen" increase provision of the Equity Compensation Plan providing for an automatic increase in the number of Ordinary Shares reserved for issuance under such plan and 3,524,394 Ordinary Shares previously issued or granted and subsequently forfeited or otherwise returned to the Registrant that have become available for issuance again under the Equity Compensation Plan in accordance with the share recycling provision of such plan; and (ii) 47,619 additional Ordinary Shares issuable to eligible employees of the Registrant and its affiliates under the GlobalFoundries Inc. 2021 Employee Stock Purchase Plan (the "**Employee Stock Purchase Plan**" and, together with the Equity Compensation Plan, the "**Plans**") pursuant to an annual "evergreen" provision of the Employee Stock Purchase Plan providing for an automatic increase in the number of Ordinary Shares reserved for issuance under such plan. The Registrant previously filed a registration statement on Form S-8 filed with the Commission on November 2, 2021 (Registration No. 333-260674) relating to the Ordinary Shares

issuable under the Plans, which is currently effective (the "**Prior Registration Statement**"). Pursuant to General Instruction E of Form S-8, the contents of the Prior Registration Statement relating to the Plans, including annual reports and other reports that the Registrant filed after the Prior Registration Statement to maintain current information about the Registrant, are incorporated herein by reference and made part of this Registration Statement, except to the extent supplemented, superseded or modified by the specific information set forth below and/or the specific exhibits attached hereto.

PART II. INFORMATION REQUIRED IN REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference.

This Registration Statement incorporates by reference the documents listed below, as filed by the Registrant with the Commission pursuant to the Securities Exchange Act of 1934, as amended (the "**Exchange Act**"). In addition, any Report on Form 6-K of the Registrant hereafter furnished to the Commission pursuant to the Exchange Act shall be incorporated by reference into this Registration Statement if and to the extent provided in such document.

(a) The Registrant's annual report on Form 20-F for the fiscal year ended December 31, 2024, filed with the Commission on March 20, 2025 (File No. 001-40974).

(b) All other reports filed by the Registrant pursuant to Section 13(a) or 15(d) of the Exchange Act since December 31, 2024.

All reports and other documents subsequently filed by the Registrant pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act, prior to the filing of a post-effective amendment to this Registration Statement which indicates that all securities offered hereby have been sold or which deregisters all securities remaining unsold, shall be deemed to be incorporated by reference in this Registration Statement and to be a part hereof from the date of filing of such reports and other documents. Except as provided in the last sentence of the first paragraph of the section of this Registration Statement entitled "Item 3. Incorporation of Documents by Reference", nothing in this Registration Statement shall be deemed to incorporate any information provided in documents that is furnished (rather than filed) or is otherwise not deemed to be filed under applicable Commission rules.

Item 8. Exhibits.

Exhibit Number	Description
4.1	Second Amended and Restated Memorandum and Articles of Association of the Registrant (incorporated by reference to Exhibit 4.1 to the Registrant's Registration Statement on Form S-8 (File No. 333-260674) filed with the SEC on November 2, 2021).
5.1*	Opinion of Maples and Calder (Cayman) LLP
23.1*	Consent of PricewaterhouseCoopers LLP, Independent Registered Public Accounting Firm
23.2*	Consent of KPMG LLP, Independent Registered Public Accounting Firm
23.3*	Consent of Maples and Calder (Cayman) LLP (included in Exhibit 5.1)
24.1*	Power of Attorney (included on signature page)
99.1	GlobalFoundries Inc. 2021 Equity Compensation Plan (incorporated by reference to Exhibit 10.1 to the Registrant's Registration Statement on Form F-1 (File No. 333-260003) filed with the SEC on October 4, 2021).
99.2	GlobalFoundries Inc. 2021 Employee Stock Purchase Plan (incorporated by reference to Exhibit 10.11 to the Registrant's Registration Statement on Form F-1 (File No. 333-260003) filed with the SEC on October 4, 2021).
107*	Filing Fee Table

* Filed herewith.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended (the "**Securities Act**"), the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the city of Malta, New York, on September 11, 2025.

GLOBALFOUNDRIES Inc.

By: /s/ John Hollister
Name: John Hollister
Title: Chief Financial Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below hereby constitutes and appoints Mr. Tim Breen and Mr. John Hollister and each of them, individually, as his true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution, for him and in his name, place and stead in any and all capacities, in connection with this Registration Statement on Form S-8 and any or all amendments, including post-effective amendments to the Registration Statement and any registration statement for the same offering that is to be effective upon filing pursuant to Rule 462 under the Securities Act, and to file the same, with all exhibits thereto, and all other documents in connection therewith to be filed with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact as agents or any of them, or his or her substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act, this registration statement has been signed below by the following persons in the capacities set forth below on September 11, 2025.

Signature	Title
/s/ Tim Breen Name: Tim Breen	Chief Executive Officer and Director (director, principal executive officer and authorized representative in the United States)
/s/ John Hollister Name: John Hollister	Chief Financial Officer (principal financial officer)
/s/ Greg Pedersen Name: Greg Pedersen	Chief Accounting Officer (principal accounting officer)
/s/ Marc Antaki Name: Marc Antaki	Director
/s/ Thomas Caulfield Name: Dr. Thomas Caulfield	Director
/s/ Glenda Dorchak Name: Glenda Dorchak	Director
/s/ Martin L. Edelman Name: Martin L. Edelman	Director
/s/ David Kerko Name: David Kerko	Director
/s/ Camilla Languille Name: Camilla Languille	Director
/s/ Jack Lazar Name: Jack Lazar	Director
/s/ Elissa E. Murphy Name: Elissa E. Murphy	Director
/s/ Carlos Obeid Name: Carlos Obeid	Director
/s/ Bobby Yerramilli-Rao Name: Bobby Yerramilli-Rao	Director

Exhibit 107

Calculation of Filing Fee Tables

Form S-8
(Form Type)

GLOBALFOUNDRIES Inc.
(Exact Name of Registrant as Specified in its Charter)

Table 1: Newly Registered Securities

Security Type	Security Class Title	Fee Calculation Rule	Amount Registered[1]	Proposed Maximum Offering Price Per Unit[3]	Maximum Aggregate Offering Price	Fee Rate	Amount of Registration Fee
Equity	Ordinary Shares, par value US$0.02 per share, reserved for future issuance under GlobalFoundries Inc. 2021 Equity Compensation Plan	Rule 457(c) and Rule 457(h)	13,901,262 [2]	$32.54	$452,347,065.48	0.00015310	$69,254.34
Equity	Ordinary Shares, par value US$0.02 per share, reserved for future issuance under the GlobalFoundries Inc. 2021 Employee Stock Purchase Plan	Rule 457(c) and Rule 457(h)	47,619 [4]	$32.54	$1,549,522.26	0.00015310	$237.24
			Total Offering Amounts		$453,896,587.74		$69,491.58
			Total Fee Offsets				$0.00
			Net Fee Due				$69,491.58

(1) Pursuant to Rule 416(a) of the Securities Act of 1933, as amended (the "**Securities Act**"), this Registration Statement covers any additional ordinary shares of the Registrant, $0.02 par value per ordinary share ("**Ordinary Shares**") that become issuable under the Registrant's 2021 Equity Compensation Plan (the "**2021 Plan**") and the Registrant's Employee Stock Purchase Plan (the "**ESPP**") by reason of any stock dividend, stock split or other similar transaction effected without the Registrant's receipt of consideration which results in an increase in the number of the outstanding Ordinary Shares.

(2) Represents 5,477,550 Ordinary Shares that were automatically added to the shares authorized for issuance under the 2021 Plan on January 1, 2023, 922,658 Ordinary Shares that were automatically added to the shares authorized for issuance under the 2021 Plan on January 1, 2024 and 3,976,660 Ordinary Shares that were automatically added to the shares authorized for issuance under the 2021 Plan on January 1, 2025, pursuant to an annual "evergreen" increase provision contained in the 2021 Plan, and 3,524,394 Ordinary Shares that have become available for issuance again under the Equity Compensation Plan in accordance with the share recycling provision of such plan.

(3) Estimated solely for the purpose of calculating the registration fee pursuant to Rules 457(c) and 457(h) of the Securities Act, based on the average of the high and low prices per Ordinary Share of the Registrant as reported on the Nasdaq Stock Exchange on September 9, 2025, of $32.54.

(4) Represents 17,416 additional Ordinary Shares that were automatically added to the shares authorized for issuance under the ESPP on January 1, 2023, 15,908 additional Ordinary Shares that were automatically added to the shares authorized for issuance under the ESPP on January 1, 2024 and 14,295 additional Ordinary Shares that were automatically added to the shares authorized for issuance under the ESPP on January 1, 2025, pursuant to an annual "evergreen" increase provision contained in the ESPP.

Our ref JWT/836351-000001/84291289v2

GLOBALFOUNDRIES, Inc.
PO Box 309, Ugland House
Grand Cayman, KY1-1104
Cayman Islands

11 September 2025

GLOBALFOUNDRIES, Inc.

We have acted as Cayman Islands counsel to GLOBALFOUNDRIES, Inc. (the "**Company**") to provide this legal opinion in connection with the Company's registration statement on Form S-8, including all amendments or supplements thereto (the "**Form S-8**"), filed with the United States Securities and Exchange Commission (the "**Commission**") under the United States Securities Act of 1933 (the "**Act**"), as amended (the "**Registration Statement**") relating to (i) 13,901,262 Ordinary Shares of the Company of a par value of US$0.02 each (the "**2021 Shares**") reserved for issuance pursuant to future awards under the Company's 2021 Equity Compensation Plan (the "**2021 Plan**"), which includes 10,376,868 Ordinary Shares that have been reserved for issuance pursuant to an annual "evergreen" increase provision of the 2021 Plan providing for an automatic increase in the number of Ordinary Shares reserved for issuance under such plan and 3,524,394 Ordinary Shares previously issued or granted and subsequently forfeited or otherwise returned to the Company that have become available for issuance again under the 2021 Plan in accordance with the share recycling provision of such plan; and (i) 47,619 Ordinary Shares of the Company of a par value of US$0.02 each (the "**ESPP Shares**" and, together with the 2021 Shares, the "**Shares**"), to be issued under the Company's Employee Stock Purchase Plan (the "**ESPP**" and together with the 2021 Plan, the "**Plans**") pursuant to an annual "evergreen" provision of the ESPP providing for an automatic increase in the number of Ordinary Shares reserved for issuance under such plan.

1 Documents Reviewed

We have reviewed originals, copies, drafts or conformed copies of the following documents, and such other documents as we deem necessary:

1.1 The certificate of incorporation dated 7 October 2008, the certificate of incorporation on change of name dated 4 March 2009 and the amended and restated memorandum and articles of association of the Company as adopted by special resolution dated 19 October 2021 and effective 1 November 2021 (the "**Memorandum and Articles**").

1.2 The minutes (the "**Minutes**") of the meetings of the board of directors of the Company held on 1 October 2021 and the corporate records of the Company maintained at its registered office in the Cayman Islands.

1.3 A certificate of good standing with respect to the Company issued by the Registrar of Companies (the "**Certificate of Good Standing**").

1.4 A certificate from a director of the Company a copy of which is attached to this opinion letter (the "**Director's Certificate**").

1.5 The Plans.

1.6 The Registration Statement.

2 Assumptions

The following opinions are given only as to, and based on, circumstances and matters of fact existing and known to us on the date of this opinion letter. These opinions only relate to the laws of the Cayman Islands which are in force on the date of this opinion letter. In giving the following opinions, we have relied (without further verification) upon the completeness and accuracy, as at the date of this opinion letter, of the Director's Certificate and the Certificate of Good Standing. We have also relied upon the following assumptions, which we have not independently verified:

2.1 The Registration Statement and the Plans have been or will be authorised and duly executed and unconditionally delivered by or on behalf of all relevant parties in accordance with all relevant laws (other than, with respect to the Company, the laws of the Cayman Islands).

2.2 The Registration Statement and the Plans are, or will be, legal, valid, binding and enforceable against all relevant parties in accordance with their terms under the laws of the State of Delaware (the "**Relevant Law**") and all other relevant laws (other than, with respect to the Company, the laws of the Cayman Islands).

2.3 The choice of the Relevant Law as the governing law of the Plans has been made in good faith and would be regarded as a valid and binding selection which will be upheld by the courts of the State of Delaware and any other relevant jurisdiction (other than the Cayman Islands) as a matter of the Relevant Law and all other relevant laws (other than the laws of the Cayman Islands).

2.4 Copies of documents, conformed copies or drafts of documents provided to us are true and complete copies of, or in the final forms of, the originals.

2.5 All signatures, initials and seals are genuine.

2.6 The capacity, power, authority and legal right of all parties under all relevant laws and regulations (other than, with respect to the Company, the laws and regulations of the Cayman Islands) to enter into, execute, unconditionally deliver and perform their respective obligations under the Registration Statement and the Plans.

2.7 No monies paid to or for the account of any party under the Registration Statement or the Plans or any property received or disposed of by any party to the Registration Statement or the Plans in each case in connection with the Registration Statement or the Plans or the consummation of the transactions contemplated thereby represent or will represent proceeds of criminal conduct or criminal property or terrorist property (as defined in the Proceeds of Crime Act (As Revised) and the Terrorism Act (As Revised), respectively.

2.8 There is nothing under any law (other than the laws of the Cayman Islands) which would or might affect the opinions set out below. Specifically, we have made no independent investigation of the Relevant Law.

2.9 The Company has received, or will receive, money or money's worth (the "**Consideration**") in consideration for the issue of the Shares, and none of the Shares have, or will be, issued for less than par value.

Save as aforesaid we have not been instructed to undertake and have not undertaken any further enquiry or due diligence in relation to the transaction the subject of this opinion.

3 Opinions

Based upon, and subject to, the foregoing assumptions and the qualifications set out below, and having regard to such legal considerations as we deem relevant, we are of the opinion that the Shares to be offered and issued by the Company as contemplated by the Registration Statement and pursuant to the provisions of the Plans, have been duly authorised for issue, and when such Shares are issued by the Company in accordance with the Memorandum and Articles , the Registration Statement and pursuant to the provisions of the Plans for the consideration fixed thereto and duly registered in the Company's register of members (shareholders), will be validly issued and (assuming that all of the Consideration is received by the Company) will be fully paid and non-assessable.

4 Qualifications

The opinions expressed above are subject to the following qualifications:

4.1 Under Cayman Islands law, the register of members (shareholders) is *prima facie* evidence of title to shares and this register would not record a third party interest in such shares. However, there are certain limited circumstances where an application may be made to a Cayman Islands court for a determination on whether the register of members reflects the correct legal position. Further, the Cayman Islands court has the power to order that the register of members maintained by a company should be rectified where it considers that the register of members does not reflect the correct legal position. As far as we are aware, such applications are rarely made in the Cayman Islands and for the purposes of the opinion given in paragraph 3, there are no circumstances or matters of fact known to us on the date of this opinion letter which would properly form the basis for an application for an order for rectification of the register of members of the Company, but if such an application were made in respect of the Shares, then the validity of such shares may be subject to re-examination by a Cayman Islands court.

4.2 In this opinion letter, the phrase "non-assessable" means, with respect to shares in the Company, that a shareholder shall not, solely by virtue of its status as a shareholder, be liable for additional assessments or calls on the shares by the Company or its creditors (except in exceptional circumstances, such as involving fraud, the establishment of an agency relationship or an illegal or improper purpose or other circumstances in which a court may be prepared to pierce or lift the corporate veil).

We hereby consent to the filing of this opinion as an exhibit to the Registration Statement. In providing our consent, we do not thereby admit that we are in the category of persons whose consent is required under Section 7 of the Act or the Rules and Regulations of the Commission thereunder.

We express no view as to the commercial terms of the Registration Statement or the Plans or whether such terms represent the intentions of the parties and make no comment with regard to warranties or representations that may be made by the Company.

The opinions in this opinion letter are strictly limited to the matters contained in the opinions section above and do not extend to any other matters. We have not been asked to review and we therefore have

not reviewed any of the ancillary documents relating to the Plans and express no opinion or observation upon the terms of any such document.

This opinion is addressed to you and may be relied upon by you and your counsel. This opinion is limited to the matters detailed herein and is not to be read as an opinion with respect to any other matter.

Yours faithfully

/s/ Maples and Calder (Cayman) LLP

Maples and Calder (Cayman) LLP

GLOBALFOUNDRIES Inc.
PO Box 309, Ugland House
Grand Cayman
KY1-1104
Cayman Islands

11 September 2025

To: Maples and Calder (Cayman) LLP
PO Box 309, Ugland House
Grand Cayman
KY1-1104
Cayman Islands

GLOBALFOUNDRIES Inc. (the "**Company**")

I, the undersigned, being a director of the Company, am aware that you are being asked to provide an opinion letter (the "**Opinion**") in relation to certain aspects of Cayman Islands law. Unless otherwise defined herein, capitalised terms used in this certificate have the respective meanings given to them in the Opinion. I hereby certify that:

1 The Memorandum and Articles remain in full force and effect and are unamended.

2 The Company has not entered into any mortgages or charges over its property or assets other than those entered in the register of mortgages and charges, or contemplated by the Plans.

3 The Minutes are each a true and correct record of the proceedings of the relevant Meeting, which was duly convened and held, and at which a quorum was present throughout, in each case, in the manner prescribed in the Memorandum and Articles. The resolutions set out in the Minutes were duly adopted, are in full force and effect at the date hereof and have not been amended, varied or revoked in any respect.

4 The authorised share capital of the Company is US$30,000,000 divided into (i) 1,300,000,000 Ordinary Shares of a nominal or par value of US$0.02 each, and (ii) 200,000,000 Preferred Shares of a nominal or par value of US$0.02 each.

5 The shareholders of the Company (the "**Shareholders**") have not restricted the powers of the directors of the Company in any way.

6 There is no contractual or other prohibition (other than as arising under Cayman Islands law) binding on the Company prohibiting it from entering into and performing its obligations under the Plans.

7 The minute book and corporate records of the Company as maintained at its registered office in the Cayman Islands and made available to you are complete and accurate in all material respects, and all minutes and resolutions filed therein represent a complete and accurate record of all meetings of the Shareholders and directors (or any committee thereof) of the Company (duly convened in accordance with the Memorandum and Articles) and all resolutions passed at the meetings or passed by written resolution or consent, as the case may be.

8 Prior to, at the time of, and immediately following the approval of the transactions the subject of the Plans the Company was, or will be, able to pay its debts as they fell, or fall, due and has entered, or will enter, into the transactions the subject of the Plans for proper value and not with an intention to defraud or wilfully defeat an obligation owed to any creditor or with a view to giving a creditor a preference.

9 Each director of the Company considers the transactions contemplated by the Plans to be of commercial benefit to the Company and has acted in good faith in the best interests of the Company, and for a proper purpose of the Company, in relation to the transactions which are the subject of the Opinion.

10 To the best of my knowledge and belief, having made due inquiry, the Company is not the subject of material legal, arbitral, administrative or other proceedings in any jurisdiction. Nor have the directors or Shareholders taken any steps to have the Company struck off or placed in liquidation, nor have any steps been taken to wind up the Company. Nor has any receiver been appointed over any of the Company's property or assets.

11 The Company is not a central bank, monetary authority or other sovereign entity of any state.

(Signature Page follows)

I confirm that you may continue to rely on this certificate as being true and correct on the day that you issue the Opinion unless I shall have previously notified you personally to the contrary.

Signature: __/s/ Tim Breen_____

Name: Tim Breen

Title: Director

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in this Registration Statement on Form S-8 of GLOBALFOUNDRIES Inc. of our report dated March 20, 2025 relating to the financial statements and the effectiveness of internal control over financial reporting, which appears in GLOBALFOUNDRIES Inc.'s Annual Report on Form 20-F for the year ended December 31, 2024.

/s/ PricewaterhouseCoopers LLP
San Jose, California
September 11, 2025

Consent of Independent Registered Public Accounting Firm

We consent to the use of our report dated April 29, 2024, with respect to the consolidated financial statements of GLOBALFOUNDRIES Inc. and subsidiaries, incorporated herein by reference.

/s/ KPMG LLP

Singapore

September 11, 2025