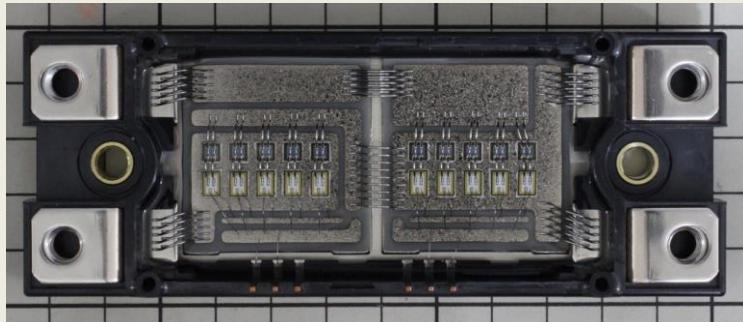
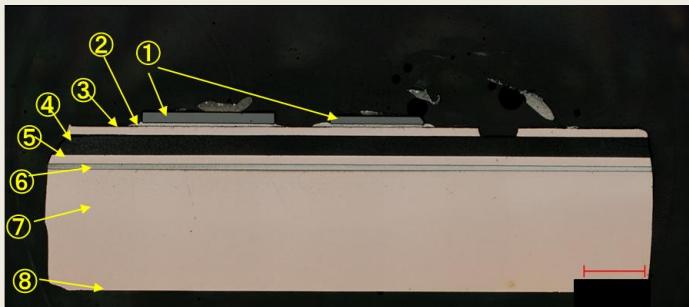


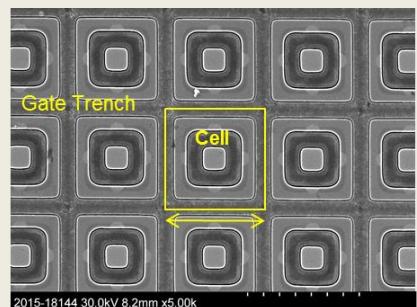
REPORT OF THE ROHM 3rd GENERATION SiC MOSFET POWER MODULE: BSM180D12P3C007



Overall appearance of the SiC Power module.



Cross-sectional view of the power module.



Top view of the Double Trench
SiC MOSFET array.

- This 95 pages report reveals construction details of the ROHM-manufactured 180A, 1200V SiC half-bridge power module. 1) Module/Package structure, 2) 3rd Generation SiC MOSFET device featuring a Double-Trench structure.
- The report includes package details, layout analysis, die plane analysis by delayering technique, die cross sections (SEM), and materials analysis (EDX)

Please contact LTEC Corporation

Contact info@ltecusa.com for more information.

Table of Contents	ROHM BSM180D12P3C007	Page
1	Executive Summary...(Table 1)	3
1-1	Analysis Results	4
	Table 2: Overview of the Power module structure	4
	Table 3: SiC MOSFET device structure	5
	Table 4: SiC MOSFET device : Material and layer thicknesses	6
2	Analysis of the Power Module	7
2-1	External observation	8
2-2	Module configuration	10
2-3	Devices arrangement and wiring electrode layout	11
2-4	Module structural and material analysis by EDX	26-45
3	Analysis of the SiC MOSFET Die	46
3-1	Plane observation	47
	Die thickness	47
	Die corner and peripheral the metal wiring	49-68
3-2	Planar structure analysis(SEM)	69
	Transistor cell array	70
	Die corner and peripheral guard ring configuration	71
3-3	Cross-sectional structural analysis(SEM)	79
	Transistor cell array: trench and source · Pwell diffusion	80
	Die periphery and edge configuration	88-95

Please contact LTEC Corporation

Contact info@ltecusa.com for more information.