



## Silicon Crystal & Compound Semiconductor

### ➤ Gallium Arsenide (GaAs) Substrate

**Gallium Arsenide (GaAs) Substrate** is a compound material foamed by high purity Gallium and Arsenic elements, grown by Vertical Gradient Freeze (VGF) method, is extensively used for LED or LD application in the optoelectronic and microelectronic industries. 2" 3" 4" and 6" is available.



No.	Items	Standard Specifications			
		2"	3"	4"	6"
1	Size				
2	Diameter mm	50.8±0.3	76.2±0.3	100±0.5	150±0.5
3	Growth Method	VGF	VGF	VGF	VGF
4	Conductivity	SC/P(Zn-doped), SC/N(Si-doped), Semi-insulating			
5	Orientation	<100>	<100>	<100>	<100>
6	Thickness μm	350±25	625±25	625±25	650±25
7	Flats Option	EJ or as per SEMI standard			
8	Orientation Flat mm	17±1	22±1	32±1	Notch
9	Identification Flat mm	7±1	12±1	18±1	-
10	Resistivity Ω·cm	(1-9)E3 for P or N, (1-10)E8 for Semi-Insulating			
11	Hall Mobility cm <sup>2</sup> /v.s	50-120 for P, (1-2.5)E3 for N; ≥4000 for Semi-Insulating			
12	Carrier Concentration atoms/cm <sup>3</sup>	(5-50)E18 for P; (0.8-4)E18 for N			
13	TTV μm max	10	10	10	10
14	Bow μm max	30	30	30	30
15	Warp μm max	30	30	30	30
16	EPD cm <sup>-2</sup>	5000	5000	5000	5000
17	Edge Profile	As per SEMI	As per SEMI	As per SEMI	As per SEMI
18	Epi Ready	Applicable	Applicable	Applicable	Applicable
19	Surface Finish	P/E, P/P	P/E, P/P	P/E, P/P	P/E, P/P
20	Packing	Single wafer container inside, carton box outside.			
21	Remark	Mechanical grade GaAs substrate available upon request			