

# GaAs/AlGaAs Epitaxial Wafer for IR LED

## IR Window Epi-wafer

MODEL NUMBER		LG095LE-WH				LG095LE-WHB				LG095LE-WU				LG095LE-WUB				
STRUCTURE & MATERIAL SPECIFICATION	ITEM	UNIT	3rd layer	2nd layer	1st layer	substrate	3rd layer	2nd layer	1st layer	substrate	3rd layer	2nd layer	1st layer	substrate	3rd layer	2nd layer	1st layer	substrate
	Material		AlGaAs	GaAs	GaAs	GaAs	AlGaAs	GaAs	GaAs	GaAs	AlGaAs	GaAs	GaAs	GaAs	AlGaAs	GaAs	GaAs	GaAs
	Growth Method		Liquid Phase Epitaxy			HB/VGF	Liquid Phase Epitaxy			HB/VGF	Liquid Phase Epitaxy			VGF	Liquid Phase Epitaxy			VGF
	Conduction Type		P	P	N	N	P	P	N	N	P	P	N	N	P	P	N	N
	Dopant		Zn	Si	Si	Si	Zn	Si	Si	Si	Zn	Si	Si	Si	Zn	Si	Si	Si
	Carrier Conc.	cm-3	1.0x10 <sup>18</sup> Min.	1.0x10 <sup>18</sup> Min.	1.0x10 <sup>17</sup> Min.	1~20x10 <sup>17</sup>	1.0x10 <sup>18</sup> Min.	1.0x10 <sup>18</sup> Min.	1.0x10 <sup>17</sup> Min.	1~20x10 <sup>17</sup>	1.0x10 <sup>18</sup> Min.	1.0x10 <sup>18</sup> Min.	1.0x10 <sup>17</sup> Min.	1~20x10 <sup>17</sup>	1.0x10 <sup>18</sup> Min.	1.0x10 <sup>18</sup> Min.	1.0x10 <sup>17</sup> Min.	1~20x10 <sup>17</sup>
	Thickness	um	20~80	5~50	25~65	50~245	20~80	5~50	25~65	60~155	20~80	5~50	25~65	50~245	20~80	5~50	25~65	60~155
	E.P.D	cm-2				1x10 <sup>4</sup> Max.				1x10 <sup>4</sup> Max.				1x10 <sup>4</sup> Max.				1x10 <sup>4</sup> Max.
	Orientation					(100)±0.5deg.				(100)±0.5deg.				(100)±0.5deg.				(100)±0.5deg.
CHARACTERISTICS	E.L. Wavelength (at IF=20mA)	nm	935±10				935±10				935±10				935±10			
	Output Power (at IF=20mA)	mV	10.0 Min. (PROWTech Unit)				10.0 Min. (PROWTech Unit)				12.0 Min. (PROWTech Unit)				12.0 Min. (PROWTech Unit)			
	Surface/Backside Appearance		As Grown/Lapping				As Grown/Lapping				As Grown/Lapping				As Grown/Lapping			
	Total Thickness	um	270±25				230±25				270±25				230±25			
	Diameter	mm	62mm Max				62mm Max				62mm Max				62mm Max			

- Notes**
1. These models are suitable for long distance remote control with higher current and lower forward voltage.
  2. These specifications are subject to change without notice.