

# Constitution Materials List

Product	Laser diode
Package	RLD90QZWD -00x
Weight(mg)	305.5045

The RoHS directive, REACH regulation, and other laws and regulations related to the management of environmentally hazardous substances come into effect. When developing products, the global environmental load must be considered. ROHM pursues green procurement and endeavors to increase the detection accuracy of chemicals contained in parts and procured materials while at the same time placing great importance on the internal chemical management system that was built to ensure that no prohibited substances are procured, used, or shipped in order to provide a steady supply of worry-free products.

○ This item is in compliance with RoHS.

○ Pb free

No.	Part Name		Substance Name	CAS No.	Weight [mg]	Content
1	LD Die		GaAs	1303-00-0	0.1415	99.4936%
			Titanium (Ti)	7440-32-6	0.0001	0.0844%
			Aluminium(Al)	7429-90-5	0.0004	0.2532%
			Gold(Au)	7440-57-5	0.0002	0.1688%
2	Die attach		Silver(Ag)	7440-22-4	0.0326	72.5000%
			Bisphenol A Diglycidyl Ether Resin(C18H21ClO3)	2506-83-86	0.0018	4.0000%
			N,N-Diglycidyl-4-Glycidyloxy Aniline(C15H19N04)	5026-74-4	0.0027	6.0000%
			Epoxy Resin	—	0.0046	10.2500%
			Dicyandiamide (C2H4N4)	461-58-5	0.0003	0.7500%
			Diethyleneglycol monoethyl ether acetate	112-15-2	0.0029	6.5000%
3	Submount Die		Aluminum nitride(AIN)	24304-00-5	0.5200	95.1858%
			Titanium (Ti)	7440-32-6	0.0007	0.1281%
			Platinum(Pt)	7440-06-4	0.0070	1.2813%
			Gold(Au)	7440-57-5	0.0173	3.1668%
			Tin(Sn)	7440-31-5	0.0013	0.2380%
4	Die attach		Indium(In)	7440-74-6	0.1300	100.0000%
5	Stem	Base material	Iron(Fe)	7439-89-6	219.3750	99.6498%
			Carbon (C)	7440-44-0	0.1100	0.0500%
			Mangan (Mn)	7439-96-5	0.6610	0.3003%
		Lead pin	Iron(Fe)	7439-89-6	16.7630	54.2545%
			Nickel(Ni)	7440-02-0	9.1090	29.4818%
			Cobalt(Co)	7440-48-4	5.0250	16.2637%
		Glass	Silicon oxide(SiO2)	7631-86-9	1.1600	68.0751%
			Aluminium oxide(Al2O3)	1344-28-1	0.0510	2.9930%
			Sodium oxide(Na2O)	1313-59-3	0.0850	4.9883%
			Potassium oxide(K2O)	12136-45-7	0.0850	4.9883%
			Lithium oxide(Li2O)	12057-24-8	0.0850	4.9883%
			Barium oxide(BaO)	1304-28-5	0.0680	3.9906%
			Boron trioxide(B2O3)	1303-86-2	0.1700	9.9765%
		Plating	Nickel(Ni)	7440-02-0	0.5000	41.6667%
			Gold(Au)	7440-57-5	0.7000	58.3333%

6	Cap	Base material	Iron(Fe)	7439-89-6	20.4000	50.0000%
			Nickel(Ni)	7440-02-0	20.4000	50.0000%
		Window glass	Silicon Dioxide(SiO2)	7631-86-9	2.9400	64.9007%
			Boron trioxide(B2O3)	1303-86-2	0.2500	5.5188%
			Zinc oxide(ZnO)	1314-13-2	0.2500	5.5188%
			Titanium dioxide(TiO2)	13463-67-7	0.2500	5.5188%
			Aluminium oxide(Al2O3)	1344-28-1	0.2500	5.5188%
			Sodium oxide(Na2O)	1313-59-3	0.2500	5.5188%
			Potassium oxide(K2O)	12136-45-7	0.2500	5.5188%
			Calcium oxide(CaO)	1305-78-8	0.0450	0.9934%
			Sulfur(S)	7704-34-9	0.0450	0.9934%
		Anti Reflection coating	Other	—	0.0140	100.0000%
		Low-melting glass	Tellurium dioxide(TeO2)	7446-07-3	1.3200	42.9967%
			Barium oxide(BaO)	1304-28-5	0.3200	10.4235%
			Boron trioxide(B2O3)	1303-86-2	0.2200	7.1661%
			Zinc oxide(ZnO)	1314-13-2	0.1400	4.5603%
			Zirconium Silicate(ZrSiO4)	10101-52-7	1.0700	34.8534%
		Plating	Nickel(Ni)	7440-02-0	2.1400	99.5349%
			Other	—	0.0100	0.4651%
7	Bonding wire		Gold(Au)	7440-57-5	0.1300	99.9908%
			Other	—	0.0000	0.0092%

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