

# Material Composition Specification

## GPR-1A Case

Pb (lead)-free plating\* 

Device average mass ..... 342 mg

Fluctuation margin ..... +/-10%

Component	Material	Material		Substance	CAS No.	Substance		
		(%wt)	(mg)			(%wt)	(mg)	(ppm)
active device	doped Si	0.34%	1.16	Si	7440-21-3	0.34%	1.16	3392
lead wire	copper	80.70%	276	Cu	7440-50-8	80.65%	275.83	806520
				Zn	7440-66-6	0.05%	0.17	497
die attach	solder	0.50%	1.7	Cu	7440-50-8	0.40%	1.36	3977
				Ag	7440-22-4	0.08%	0.26	760
				P	7723-14-0	0.03%	0.09	263
encapsulation	moly slug	13.39%	45.8	Mo	7439-98-7	13.39%	45.8	133918
case	glass powder	2.92%	10	ZnO	1314-13-2	1.75%	6	17544
				B <sub>2</sub> O <sub>3</sub>	1303-86-2	0.88%	3	8772
				SiO <sub>2</sub>	14808-60-7	0.23%	0.8	2339
				PbO	1317-36-8	0.06%	0.2	585
*plating	tin lead solder	2.05%	7	Sn	7440-31-5	1.74%	5.96	17427
				Pb	7439-92-1	0.30%	1.04	3041
	100% tin, Pb-free	2.05%	7	Sn	7440-31-5	2.05%	7	20468

\*Specify Lead-Free when ordering 100% tin (Pb-free) plating.

### Disclaimer

The information provided in this Material Composition data sheet is, to our knowledge, correct. However, there is no guarantee to completeness or accuracy, as some information is derived from data sources outside the company.