

Chemicals contained in products

Package-type

Epson Package name; **PLP062725A-10F / Halogen free**

JEITA Package name; **P-UPLP010-02.50x02.70-0.50**

Lead frame plating; **Lead(Pb) Free**

Weight; **0.008 [g]** *Note1

Part	Subpart	Subpart weight [mg]	Substance name	CAS No.	Content *Note2		Application
					[mg]	[ppm]	
IC Die	IC Die	0.40	Silicon	7440-21-3	0.85	999914	Base material
			Boron	7440-42-8	0.0000008	2	Dopant
			Phosphorus	7723-14-0	0.000002	5	Dopant
			Aluminum	7429-90-5	0.000008	20	Metalization
			Arsenic *Note3	7440-38-2	0.000004	5	Dopant
			Fluorine *Note3	7782-41-4	0.0000008	2	Dopant
			Titanium *Note3	7440-32-6	0.000008	20	Metalization
			Tungsten *Note3	7440-33-7	0.00001	30	Metalization
Package	Die Bonding material	0.05	Silver	7440-22-4	0.04	770000	Base material
			Epoxy resin	-	0.01	200000	Adhesive
			Phenol resin	-	0.002	30000	Adhesive
	Lead Frame	1.95	Gold	7440-57-5	0.006	3000	Base material
			Nickel	7440-02-0	1.86	954000	Base material
			Silver	7440-22-4	0.08	43000	Base material
	Bonding Wire	0.09	Gold	7440-57-5	0.09	1000000	Base material
	Mold resin	5.52	Epoxy resin	-	0.40	73000	Base material
			Phenol resin	-	0.19	34000	Hardening accelerator
			Silica	60676-86-0	4.68	849000	Filler
			Organic phosphorous compound	-	0.03	5000	Hardening accelerator
			Carbon black	1333-86-4	0.03	5000	Coloring agent
	Metal hydroxide	-	0.19	34000	Flame retardant		

Regarding the information of chemical substances

*Note1 The weight might be somewhat different depending on an individual built-in IC-chip specification like the size etc.

*Note2 Content data are estimated values based on supplier information and intended levels of content in product.

Actual measurements may vary from these values somewhat.

*Note3 Use or not-use of these substances depends on individual built-in IC-chip specification.