

Chemicals contained in products

Package-type

Epson Package name; **SON-6PIN**

JEITA Package name; **P-WS0N06-02.60x01.60-0.80**

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

Weight; **0.007 [g]** *Note1

Part	Subpart	Subpart weight [mg]	Substance name	CAS No.	Content ※2		Application
					[mg]	[ppm]	
IC Die	IC Die	0.44	Silicon	7440-21-3	0.44	999894	Base material
			Boron	7440-42-8	0.000001	2	Dopant
			Phosphorus	7723-14-0	0.000002	5	Dopant
			Aluminum	7429-90-5	0.000009	20	Metalization
			Arsenic *Note3	7440-38-2	0.000002	5	Dopant
			Fluorine *Note3	7782-41-4	0.000001	2	Dopant
			Titanium *Note3	7440-32-6	0.000009	20	Metalization
			Molybdenum *Note3	7439-98-7	0.000009	20	Metalization
			Tungsten *Note3	7440-33-7	0.00001	30	Metalization
			Cobalt *Note3	7440-48-4	0.000001	2	Metalization
	Stress buffer coat	0.009	Polyimide	-	0.009	1000000	Stress buffer coat *Note4
Package	Die Bonding material	0.029	Silver	7440-22-4	0.02	826087	Base material
			Epoxy resin	-	0.002	86957	Adhesive
			Phenol resin	-	0.002	86957	Adhesive
	Lead Frame Plating	0.052	Tin	7440-31-5	0.051	975000	Solder
			Silver	7440-22-4	0.001	25000	Solder
	Lead Frame	2.8	Copper	7440-50-8	2.7	945000	Conductor
			Silver	7440-22-4	0.014	5000	Inner lead plating
			Others *Note5	-	0.14	50000	Additive
	Bonding Wire	0.017	Gold	7440-57-5	0.017	1000000	Conductor
	Mold resin	3.6	Epoxy resin	-	0.29	80000	Base material
			Antimony Trioxide	1309-64-4	0.055	15000	Flame retardant
			Halogenated compound(Brominations epoxy)	-	0.036	10000	Flame retardant
			Silica	60676-86-0/-	3.0	819000	Filler
			Carbon black	1333-86-4	0.011	3000	Coloring agent
			Hardening chemical(ex:Phenol resin)	-	0.26	70000	Hardening chemical
			Organic phosphorous compound	-	0.011	3000	Hardening accelerator

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.

*Note4 The stress buffer coat may not be used depending on the individual model.

*Note5 The nickel, zinc, tin, silicon, iron, and the zinc oxide are included for the Cu type. And the carbon, silicon, and manganese are included for 42alloy type.