



Semiconductor Device Type: JZA 004 VDFN 5x7x0.9mm NiPdAu			Termination Base Alloy: Copper Alloy (Cu)			Package Homogeneous Materials			J-STD-609A Product Marking and/or Pkg. Labeling e3
Basic Substance	CAS Number	"Contained in" Sub-Component	% Total Weight	mg/part	ppm	(mg) Total	Mold Compound	% of Total Weight	
Silica, vitreous (or fused)	60676-86-0	Mold Compound	39.585	34.161	395,845	40.19	Silica, vitreous (or fused)	60676-86-0	85.00
Epoxy Resin	Trade Secret	Mold Compound	3.958	3.416	39,585		Epoxy Resin	Trade Secret	8.50
Phenolic Resin	Trade Secret	Mold Compound	1.630	1.407	16,300		Phenolic Resin	Trade Secret	3.50
Silica, vitreous (or fused)	7631-86-9	Mold Compound	1.257	1.085	12,574		Silica, vitreous (or fused)	7631-86-9	2.70
Carbon Black	1333-86-4	Mold Compound	0.140	0.121	1,397		Carbon Black	1333-86-4	0.30
Copper	7440-50-8	Lead Frame	46.228	39.895	462,281		Total 100.00		
Iron	7439-89-6	Lead Frame	0.069	0.060	695	39.98	Lead Frame		46.33
Phosphorous	7723-14-0	Lead Frame	0.019	0.016	185		Copper	7440-50-8	99.78
Zinc (Metal)	7440-66-6	Lead Frame	0.014	0.012	139		Iron	7439-89-6	0.15
Silica Fused	60676-86-0	Die Attach 1	0.388	0.335	3,879		Phosphorous	7723-14-0	0.04
Epoxy Resin	120206-26-0	Die Attach 1	0.115	0.099	1,148		Zinc (Metal)	7440-66-6	0.03
Poly(Bisphenol A-co-epichlorohydrin)	25068-38-6	Die Attach 1	0.087	0.075	874	Total 100.00			
Silver	7440-22-4	Die Attach 2	0.367	0.316	3,666	0.51	Die Attach 1		0.59
Acrylic Resin	Trade secret	Die Attach 2	0.103	0.089	1,034		Silica Fused	60676-86-0	65.74
Doped Silicon	7440-21-3	Chip (Die) 1	2.590	2.235	25,900		Epoxy Resin	120206-26-0	19.45
Doped Silicon	7440-21-3	Chip (Die) 2	1.580	1.364	15,800	0.41	Poly(Bisphenol A-co-epichlorohydrin)	25068-38-6	14.81
Doped Gold	7440-57-5	Wire Bond 1	0.360	0.311	3,600		Total 100.00		
Doped Gold	7440-57-5	Wire Bond 2	0.150	0.129	1,500	2.24	Die Attach 2		0.47
Nickel	7440-02-0	Plating on external leads (pins)	1.281	1.106	12,814		Silver	7440-22-4	78.00
Palladium	7440-05-3	Plating on external leads (pins)	0.049	0.042	491		Acrylic Resin	Trade secret	22.00
Gold	7440-57-5	Plating on external leads (pins)	0.030	0.025	295		Total 100.00		
TOTALS:			100.000	86.300	1,000,000	1.36	Chip (Die) 1		2.59
0.0863 g Total Mass							Doped Silicon	7440-21-3	100
This semiconductor device and its homogenous materials comply with EU Directives: 2002/95/EC (27 January 2003) & Directive 2011/65/EU (08 June 2011) and 2015/863/EU (31 March 2015) and 2000/53/EC and 2016/774/EU (End-of-Life Vehicles (ELV) without exemption (zero)									
Compliance with the above EU Directives has been verified via internal design controls, supplier declarations, and/or analytical test data.									
If a chemical substance is absent from the list above, the chemical substance is NOT an intentional ingredient in the semiconductor device and, to the best of Microchip Technology Incorporated's knowledge and belief as of the date of this document, there is no credible reason to believe that the unavoidable impurity concentration of the chemical substance, if any, is not below the threshold of regulatory concern for any regulatory scheme world-wide.									
Molding compounds used by Microchip meet the UL94 V0 flammability standard for plastics. You can access the UL IQTM family of databases to obtain a test report at http://ul.com/global/eng/pages/offerings/industries/chemicals/plastics/									
The protective "tubes" in which the specific product is shipped are made from polyvinyl chloride (PVC) plastic. "Window envelopes" used to hold the packing slip on the outer box and certain "reels" may be made from PVC plastic.									
Microchip Technology Incorporated believes the information in this form concerning substances restricted by RoHS in Microchip Technology Incorporated's semiconductor devices in their original packing materials is true and correct to the best of its knowledge and belief, as of the date listed in this form. Microchip Technology Incorporated cannot guarantee the completeness and accuracy of data in this form because it has been compiled based on the ranges provided in Material Safety Data Sheets provided by raw material suppliers. Supplier information is often protected from disclosure as trade secrets and some information may not have been provided by subcontract assemblers and raw material suppliers. Information is provided only as estimates of the average weight of these parts and the average weight of anticipated significant toxic metals components. These estimates do not include trace levels of dopants, metals, and non-metal materials contained within silicon devices (silicon IC) in the finished parts.									
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Assembled package referenced above is EU REACH compliant based on the latest SVHC candidate list of ECHA which can be found at http://echa.europa.eu/web/guest/candidate-list-table									
						0.13	Wire Bond 1		0.36
							(mg) Total	Wire Bond 2	% of Total Weight
						0.31	Doped Gold	7440-57-5	100.00
							(mg) Total	Wire Bond 2	% of Total Weight
						0.41	Total 100.00		
							Doped Gold	7440-57-5	100
						0.51	Plating on external leads (pins)		1.36
							(mg) Total	Wire Bond 2	% of Total Weight
						0.59	Nickel	7440-02-0	94.22
							(mg) Total	Wire Bond 2	% of Total Weight
						0.695	Palladium	7440-05-3	3.61
							(mg) Total	Wire Bond 2	% of Total Weight
						0.874	Gold	7440-57-5	2.17
							(mg) Total	Wire Bond 2	% of Total Weight
						1.034	Total 100.00		
							(mg) Total	Wire Bond 2	% of Total Weight
						1.148	Total 100.00		
							(mg) Total	Wire Bond 2	% of Total Weight
						1.281	Total 100.00		
							(mg) Total	Wire Bond 2	% of Total Weight
						1.500	Total 100.00		
							(mg) Total	Wire Bond 2	% of Total Weight
						1.580	Total 100.00		
							(mg) Total	Wire Bond 2	% of Total Weight
						1.85	Total 100.00		
							(mg) Total	Wire Bond 2	% of Total Weight
						2.235	Total 100.00		
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							(mg) Total	Wire Bond 2	% of Total Weight
						46.33	Total 100.00		
							(mg) Total	Wire Bond 2	