

Chip	Si	7440-21-3	99.4	1.4	1.392	46386
	Al	7429-90-5	0.6		0.008	279
	As (dopant)	7440-38-2	1.00e-10		1.40e-12	4.67e-08
	B (dopant)	7440-42-8	1.00e-10		1.40e-12	4.67e-08
	Ge (dopant)	7440-56-4	1.00e-10		1.40e-12	4.67e-08
	P (dopant)	7723-14-0	1.00e-10		1.40e-12	4.67e-08
	Sb (dopant)	7440-36-0	1.00e-10		1.40e-12	4.67e-08
Die Attach	Ag	7440-22-4	75	0.3	0.225	7499
	Epoxy Resin	25928-94-3	25		0.075	2499
Wires	Au	7440-57-5	100	0.06	0.06	1999
Ext. LeadFinish	Sn	7440-31-5	85	1.23	1.046	34849
	Pb	7439-92-1	15		0.184	6149
Int. LeadFinish	Ag	7440-22-4	100	0.14	0.14	4666
Total:					30	1,000,000

LEAD-FREE VERSION

Item	Component	CAS#	% of Component in item	Weight of Item (mg)	Weight of Component (mg)	ppm of component in package
Leadframe	Cu	7440-50-8	97.45	14.72	14.345	480718
	Fe	7439-89-6	2.4		0.353	11839
	Zn	7440-66-6	0.12		0.018	591
	P	7723-14-0	0.03		0.004	147
Plastic	SiO2	60676-86-0	84.42	12.15	10.257	343734
	Epoxy Resin	25928-94-3	15		1.823	61075
	Sb2O3	1309-64-4	0.35		0.043	1425
	Brominated Epoxy	40039-93-8	0.23		0.028	936
Chip	Si	7440-21-3	99.4	1.4	1.392	46635
	Al	7429-90-5	0.6		0.008	281
	As (dopant)	7440-38-2	1.00e-10		1.40e-12	4.69e-08
	B (dopant)	7440-42-8	1.00e-10		1.40e-12	4.69e-08
	Ge (dopant)	7440-56-4	1.00e-10		1.40e-12	4.69e-08
	P (dopant)	7723-14-0	1.00e-10		1.40e-12	4.69e-08
	Sb (dopant)	7440-36-0	1.00e-10		1.40e-12	4.69e-08
Die Attach	Ag	7440-22-4	75	0.3	0.225	7540
	Epoxy Resin	25928-94-3	25		0.075	2513
Wires	Au	7440-57-5	100	0.06	0.06	2010
Ext. LeadFinish	Sn	7440-31-5	100	1.07	1.07	35857
Int. LeadFinish	Ag	7440-22-4	100	0.14	0.14	4691
Total:					29.84	1,000,000

Note: The device content disclosed herewith is approximate and is based on engineering estimates only. It has not been verified through analytical testing. Additionally, the following should be noted:

1. One or more dopant materials may be present in the silicon die to provide semiconductor properties. The amounts are very small and estimated as listed.
2. Epoxy resin components listed are generic and may or may not be the specific compound used, which is considered proprietary.
3. Brominated epoxy resins listed are generic and may or may not be the specific chemical used. The identity of the compound used is proprietary, however National certifies that these brominated compounds are not PBB or PBDE's, which are banned.
4. The die attach, if present, does not contain any flame retardant.

Packaging Mechanical Drawing

mub10a Mechanical Drawing (114 Kbytes)			
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