



MATERIAL DATA FORM

Manufacturer contact Information

Contact Name	Compliance Coordinator
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Manufacturer's Part Number.	Total Mass of the Unit specified in (g):	Material Name	Substance Name	IMDS No.	Substance Mass (mg)	% Weight of Assembly	PPM of Total Assembly
DDZ3V6BSF – DDZ20BSF	0.005	Die,Zener	Doped silicon	TBD	0.0575	1.07%	10700
Customer's Partnumber.		SOD-323F leadframe	EFTEC-64T	TBD	1.3903	25.87%	258720
			Die attached pad plating	37507916	0.0505	0.94%	9396
		Bonding wire	Gold	3399000	0.0119	0.22%	2211
		Molding compound	KTMC-1050G	89310110	3.7094	69.03%	690291
		Tin solder	Pure Tin	37508652	0.1541	2.87%	28681

Total (mg)	5.374
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MATERIAL DATA FORM DETAIL

Manufacturer's Part Number.	Total Mass of the Unit specified in (g):	Material Name	Generic ID	Element	CAS No.	Substance Mass (mg)	% of Weight (Sub Assembly Material)	PPM of Sub Assembly Material	PPM of Total Weight	
DDZ3V6BSF – DDZ20BSF	0.005	Die,Zener	Doped silicon	Si	7440-21-3	0.0575	100.00%	1000000	10700	
Customer's Partnumber.		SOD-323F leadframe	EFTEC-64T	Cu	7440-50-8	1.3800	99.26%	992600	256806	
				Cr(not Cr 6+)	7440-47-3	0.0038	0.27%	2700	699	
				Sn	7440-31-5	0.0035	0.25%	2500	647	
				Zn	7440-66-6	0.0031	0.22%	2200	569	
			Pure silver	Ag	7440-22-4	0.0505	100.00%	1000000	9396	
			Bonding wire	1.0mil	Au	7440-57-5	0.0119	100.00%	1000000	2211
			Molding compound	KTMC-1050G	SiO2	60676-86-0	2.5595	69.00%	690000	476301
					Epoxy Resin	29690-82-2	0.5193	14.00%	140000	96641
					Phenol Resin	9003-35-4	0.2597	7.00%	70000	48320
					Mg(OH)2	1309-42-8	0.2967	8.00%	80000	55223
					C	1333-86-4	0.0074	0.20%	2000	1381
			Tin solder	Pure Tin	Sn	7440-31-5	0.1541	100.00%	1000000	28681
Total (mg)						5.374				

MATERIALS DISCLOSURE DISCLAIMER

- The materials are disclosed according to JIG-101 "Material Composition Declaration for Electronic Products"
- Even though all possible efforts have been made to provide you with the most accurate information, we can not guarantee its completeness and accuracy due to the fact that the data has been compiled based on information provided by our subcontractors and raw material suppliers. Complete information may not have been provided to protect their business proprietary information. Based on the above considerations this information is provided only as estimates of the average weight of these parts and the anticipated significant toxic metals components.
- These estimates do not include trace levels of dopants and metal materials within the silicon devices contained inside of the finished products.

This product or product family does not contain any of the following substances except as **CURRENTLY** exempted by ELVII and RoHS and reported above:

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| <ol style="list-style-type: none"> Antimony compounds Asbestos Azo compounds Cadmium and cadmium compounds Certain Shortchain Chlorinated Paraffins Chlorinated organic compounds Halogens Hexavalent chromium compounds Lead and lead compounds Mercury and mercury compounds Organic tin compounds | <ol style="list-style-type: none"> Ozone Depleting Substances - Class I (CFCs, HBFCs, etc.) Ozone Depleting Substances - Class II (HCFCs) Perfluorooctane Sulphonate (PFOS) or related compounds Polybrominated biphenyls (PBB) and Polybrominated diphenyl ethers (PBDE) including DecaBDE Polychlorinated Biphenyls (PCBs) Polychlorinated Naphthalenes (>3 chlorine atoms) Radioactive Substances Tributyl Tin (TBT) and Triphenyl Tin (TPT) Tributyl Tin Oxide (TBTO) |
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This product or product family meet REACH requirements for chemicals designated by the European Chemicals Agency (ECHA) as Substances of Very High Concern (SVHC) appended below:

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|---------------------------------|-------------------------------------------------------------------------|
| 1. Anthracene | 9. Bis (2-ethyl(hexyl)phthalate) (DEHP) |
| 2. 4,4'- Diaminodiphenylmethane | 10. Hexabromocyclododecane (HBCDD) |
| 3. Dibutyl phthalate (DBP) | 11. Bis(tributyltin)oxide (TBTO) |
| 4. Cyclododecane | 12. Lead hydrogen arsenate |
| 5. Cobalt dichloride | 13. Triethyl arsenate |
| 6. Diarsenic pentaoxide | 14. Benzyl butyl phthalate (BBP) |
| 7. Diarsenic trioxide | 15. 5-tert-butyl-2,4,6-trinitro-m-xylene (musk xylene) |
| 8. Sodium dichromate, dihydrate | 16. Alkanes, C10-13, chloro (SCCPs - Short Chain Chlorinated Paraffins) |