

Part Number: **SDM20N40A-7** Date Code **0833+**  
Weight (mg): 8.65

p = package designator  
See Data Sheet

Element	Material Group	Materials	CAS (if applicable)	Average mass homogeneous Material(%)	Percent of whole (%)	Mass (mg)	ppm Homogeneous Material	ppm overall
Chip	Silicon w/Metal	Doped Silicon*	7440-21-3	100.00%	5.17	0.45	1000000	51690
Leadframe	Alloy 42	Fe	7439-89-6	57.65%	28.26	2.44	576500	162912
		Ni	7440-02-0	41.00%			410000	115861
		Mn	7439-96-5	0.60%			6000	1696
		Cr(not Cr 6+)	7440-47-3	0.10%			1000	283
		Co	7440-48-4	0.50%			5000	1413
		Si	7440-21-3	0.15%			1500	424
Leadframe Plating	Silver	Silver	7440-22-4	100.00%	1.20	0.10	1000000	11960
Bond Wire	Gold Wire	Gold	7440-57-5	100.00%	0.30	0.03	1000000	2961
Encapsulation	CEL-1620HF-9	Silica	60676-86-0	77.00%	61.07	5.28	770000	470249
		Basic Duromer: Epoxy resin (Compound of a polymeric network)	-----	11.00%			110000	67178
		Basic Duromer: Phenolic resin (Compound of polymeric network)	-----	6.60%			66000	40307
		Misc.	system	5.00%			50000	30536
		Carbon black	1333-86-4	0.40%			4000	2443
Die Attach Epoxy	84-1LMISR4	Ag	7440-22-4	75.00%	1.05	0.09	750000	7903
		epoxy resin	Trade secret	20.00%			200000	2107
		curing agent & hardener	Trade secret	5.00%			50000	527
		Tin	7440-31-5	100.00%			11.57	0.26
Lead Plating Finish	Matte Tin	Tin	7440-31-5	100.00%	11.57	0.26	1000000	29552
				<b>Total</b>	<b>108.61</b>	<b>8.65</b>		<b>1000000</b>

Tolerance ±10%

This data is based on information provided by our suppliers. We believe it to be correct but do not routinely validate it by measurement. It is for guidance only and Diodes Inc. does not guarantee its absolute accuracy or completeness

\* The Silicon Chip is doped at atomic levels with trace amounts of elements that may include Phosphorus, Boron, Arsenic, and other elements. Metalization may include Titanium, Nickel, Aluminum, Silver or Gold. These substances are not reported where their concentration is less than the minimum reportable level per the guidelines specified in the Tables of EIA JIG-101, Material Composition Declaration for Electronic Products.

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

Asbestos	Ozone Depleting Substances - Class I (CFCs, HBFCs, etc.)
Azo compounds	Ozone Depleting Substances - Class II (HCFCs)
Cadmium and cadmium compounds	Perfluorooctane Sulphonate (PFOS) or related compounds
Certain Shortchain Chlorinated Paraffins	Polybrominated biphenyls (PBB) and Polybrominated diphenyl ethers (PBDE) including DecaBDE
Chlorinated organic compounds	Polychlorinated Biphenyls (PCBs)
Hexavalent chromium compounds	Polychlorinated Naphthalenes (> 3 chlorine atoms)
Lead and lead compounds	Radioactive Substances
Mercury and mercury compounds	Tributyl Tin (TBT) and Triphenyl Tin (TPT)
Organic tin compounds	Tributyl Tin Oxide (TBTO)