

Part Number: **SOT-23 Switching Diodes (Single)**  
Weight (mg): 8.4852

p = package designator  
See Data Sheet

p= 7, 13 BAS116-(p)-F, BAS16-(p)-F, BAS19-(p)-F, BAS20-(p)-F,  
BAS21-(p)-F, MMBD4148-(p)-F, MMBD4448-(p)-F,  
MMBD4448H-(p)-F, MMBD914-(p)-F

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%	0.49	0.0414	1000000	4879
Leadframe	Alloy 42	Fe	7439-89-6	57.65%	28.79	2.4432	576500	165995
		Ni	7440-02-0	41.00%			410000	118054
		Mn	7439-96-5	0.60%			6000	1728
		Cr(not Cr 6+)	7440-47-3	0.10%			1000	288
		Co	7440-48-4	0.50%			5000	1440
		Si	7440-21-3	0.15%			1500	432
Leadframe Plating	Silver	Silver	7440-22-4	100.00%	1.22	0.1034	1000000	12186
Bond Wire	Gold Wire	Gold	7440-57-5	100.00%	0.10	0.0082	1000000	966
Encapsulation	CEL-1620HF-9	Silica	60676-86-0	77.00%	66.39	5.6335	770000	511219
		Basic Duromer: Epoxy resin (Compound of a polymeric network)	-----	11.00%			110000	73031
		Basic Duromer: Phenolic resin (Compound of polymeric network)	-----	6.60%			66000	43819
		Misc.	system	5.00%			50000	33196
		Carbon black	1333-86-4	0.40%			4000	2656
Lead Plating Finish	Matte Tin	Tin	7440-31-5	100.00%	3.01	0.2555	1000000	30111
<b>Total</b>					<b>100.00</b>	<b>8.4852</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 <b>DecaBDE</b>
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)