



# CONSTITUTION MATERIALS LIST

The RoHS directive, REACH regulation, and other laws and regulations related to the management of environmentally hazardous substances come into effect. When developing products, the global environmental load must be considered. ROHM pursues green procurement and endeavors to increase the detection accuracy of chemicals contained in parts and procured materials while at the same time placing great importance on the internal chemical management system that was built to ensure that no prohibited substances are procured, used or shipped in order to provide a steady supply of worry-free products.

Type	Package Code	ROHM Package	Mass (mg)	Part No.
SIC SBD	-	TO-220ACP	2082.3853	SCS3□□□AP

No	Part Name	Weight (mg)	Substance Name	CAS No	Weight (mg)	Portion vs. Products	Portion vs. Part Name
1	Mold compound	726.4184	Silica (amorphous)	60676-86-0	545.7173	26.21%	75.12%
			Epoxy resin	-	93.9646	4.51%	12.94%
			Phenol-formaldehyde resin	-	57.8243	2.78%	7.96%
			Antimony trioxide	1309-64-4	14.4561	0.69%	1.99%
			Bismuth compounds	-	7.2280	0.35%	1.00%
			Carbon black	1333-86-4	7.2280	0.35%	1.00%
			<i>Subtotal</i>		<i>726.4184</i>		<i>34.88%</i>
2	Lead frame (Base material)	1315.2795	Iron (Fe)	7439-89-6	1.6836	0.08%	0.13%
			Copper (Cu)	7440-50-8	1313.1488	63.06%	99.84%
			Phosphorus(P)	7723-14-0	0.4472	0.02%	0.03%
			<i>Subtotal</i>		<i>1315.2795</i>		<i>63.14%</i>
3	Lead frame (Surface treatment)	2.0007	Nickel (Ni)	7440-02-0	2.0007	0.10%	100.00%
			<i>Subtotal</i>		<i>2.0007</i>		<i>0.10%</i>
4	External plating	23.1426	Tin (Sn)	7440-31-5	23.1426	1.11%	100.00%
			<i>Subtotal</i>		<i>23.1426</i>		<i>1.11%</i>
5	Die	2.6364	Silicon Carbide(SiC)	409-21-2	2.5713	0.12%	97.53%
			Aluminum (Al)	7429-90-5	0.0294	0.001%	1.12%
			Nickel (Ni)	7440-02-0	0.0178	0.001%	0.68%
			Silver (Ag)	7440-22-4	0.0105	0.001%	0.40%
			Gold (Au)	7440-57-5	0.0042	0.0002%	0.16%
			Titanium(Ti)	7440-32-6	0.0031	0.0002%	0.12%
			<i>Subtotal</i>		<i>2.6364</i>		<i>0.12%</i>
6	Die attach	8.1365	Lead (Pb) *1	7439-92-1	7.7703	0.37%	95.50%
			Tin (Sn)	7440-31-5	0.1627	0.01%	2.00%
			Silver (Ag)	7440-22-4	0.2034	0.01%	2.50%
			<i>Subtotal</i>		<i>8.1365</i>		<i>0.38%</i>
7	Bonding wire	4.7713	Aluminum (Al)	7429-90-5	4.7713	0.23%	100.00%
			<i>Subtotal</i>		<i>4.7713</i>		<i>0.23%</i>
			<i>Total</i>	-	<i>2082.3853</i>	<i>100%</i>	-

## Note

※1 It is exempted from the RoHS, because of the high melting point solder.

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