



## 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.

DI-HMD12-HF-JE\_Rev.7

Type	Package Code	ROHM Package	Mass (mg)	Part No.
Diode	-	HMD12 (halogen free)	1.7000	-

No	Part Name	Weight (mg)	Substance Name	CAS No	Weight (mg)	Portion vs. Products	Portion vs. Part Name		
1	Mold compound	0.9197	Silica (amorphous)	60676-86-0	0.8091	47.60%	87.80%		
			Epoxy resin	-	0.0507	2.98%	5.50%		
			Phenol resin	9003-35-4	0.0461	2.71%	5.00%		
			Organic phosphorus compounds	-	0.0138	0.81%	1.50%		
			Carbon black	1333-86-4	0.0018	0.11%	0.20%		
			<i>Subtotal</i>		<i>0.9216</i>	<i>54.10%</i>	<i>100%</i>		
2	Lead frame (Base material)	0.6451	Copper (Cu)	7440-50-8	0.6405	37.68%	99.28%		
			Tin (Sn)	7440-31-5	0.0016	0.09%	0.25%		
			Chromium (Cr)	7440-47-3	0.0016	0.09%	0.25%		
			Zinc (Zn)	7440-66-6	0.0014	0.08%	0.22%		
						<i>Subtotal</i>		<i>0.6451</i>	<i>37.95%</i>
3	Lead frame (Surface treatment)	0.0227	Silver (Ag)	7440-22-4	0.0227	1.33%	100.00%		
						<i>Subtotal</i>		<i>0.0227</i>	<i>1.33%</i>
4	External plating	0.0328	Tin (Sn)	7440-31-5	0.0322	1.89%	98.00%		
			Copper (Cu)	7440-50-8	0.0007	0.04%	2.00%		
						<i>Subtotal</i>		<i>0.0328</i>	<i>1.93%</i>
5	Die	0.0540	Silicon (Si)	7440-21-3	0.0447	2.63%	82.83%		
			Gold (Au)	7440-57-5	0.0093	0.55%	17.17%		
						<i>Subtotal</i>		<i>0.0540</i>	<i>3.18%</i>
6	Bonding wire	0.0238	Gold (Au)	7440-57-5	0.0238	1.40%	100.00%		
						<i>Subtotal</i>		<i>0.0238</i>	<i>1.40%</i>
			<i>Total</i>				<i>1.7000</i>	<i>100%</i>	<i>-</i>

### Note

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