



# 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.

TR-UMT3FM-HF-JE\_Rev.7

Type	Package Code	ROHM Package	Mass (mg)	Part No.
Transistor	SOT-323FL(SC-85)	UMT3F (Halogen free)	4.4311	-

No	Part Name	Weight (mg)	Substance Name	CAS No	Weight (mg)	Portion vs. Products	Portion vs. Part Name
1	Mold compound	3.2873	Silica (amorphous)	60676-86-0	2.4408	55.08%	74.25%
			Epoxy resin I	-	0.3090	6.97%	9.40%
			Epoxy resin II	-	0.0970	2.19%	2.95%
			Aluminum hydroxide	21645-51-2	0.4306	9.72%	13.10%
			Carbon black	1333-86-4	0.0099	0.22%	0.30%
			<i>Subtotal</i>		<i>3.2873</i>	<i>74.19%</i>	<i>100%</i>
2	Lead frame (Base material)	0.8532	Iron (Fe)	7439-89-6	0.4949	11.17%	58.00%
			Nickel (Ni)	7440-02-0	0.3583	8.09%	42.00%
			<i>Subtotal</i>		<i>0.8532</i>	<i>19.26%</i>	<i>100%</i>
3	Lead frame (Surface treatment)	0.1158	Copper (Cu)	7440-50-8	0.1158	2.61%	100.00%
			<i>Subtotal</i>		<i>0.1158</i>	<i>2.61%</i>	<i>100%</i>
4	External plating	0.0838	Tin (Sn)	7440-31-5	0.0838	1.89%	100.00%
			<i>Subtotal</i>		<i>0.0838</i>	<i>1.89%</i>	<i>100%</i>
5	Die	0.0816	Silicon (Si)	7440-21-3	0.0768	1.73%	94.12%
			Gold (Au)	7440-57-5	0.0048	0.11%	5.88%
			<i>Subtotal</i>		<i>0.0816</i>	<i>1.84%</i>	<i>100%</i>
6	Bonding wire	0.0094	Gold (Au)	7440-57-5	0.0094	0.21%	100.00%
			<i>Subtotal</i>		<i>0.0094</i>	<i>0.21%</i>	<i>100%</i>
<i>Total</i>				-	<i>4.4311</i>	<i>100%</i>	-

## Note

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- This information provides estimates of the average weights and content of component materials, and does not include impurities or metals diffused in the silicon.
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