

# 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-TSMT8-HF-JE\_Rev.6

Type	Package Code	ROHM Package	Mass (mg)	Part No.
Transistor	-	TSMT8 (Halogen free)	18.5254	-

No	Part Name	Weight (mg)	Substance Name	CAS No	Weight (mg)	Portion vs. Products	Portion vs. Part Name	
1	Mold compound	9.0631	Silica (amorphous)	60676-86-0	8.0212	43.30%	88.50%	
			Epoxy resin	-	0.5532	2.99%	6.10%	
			Phenol-formaldehyde resin	-	0.4610	2.49%	5.09%	
			Carbon black	1333-86-4	0.0277	0.15%	0.31%	
			<i>Subtotal</i>		<i>9.0631</i>	<i>48.92%</i>	<i>100%</i>	
2	Lead frame (Base material)	8.0697	Copper (Cu)	7440-50-8	8.0616	43.52%	99.90%	
			Iron (Fe)	7439-89-6	0.0081	0.04%	0.10%	
			<i>Subtotal</i>		<i>8.0697</i>	<i>43.56%</i>	<i>100%</i>	
3	Lead frame (Surface treatment)	0.2648	Silver (Ag)	7440-22-4	0.2648	1.43%	100.00%	
			<i>Subtotal</i>		<i>0.2648</i>	<i>1.43%</i>	<i>100%</i>	
4	External plating	0.1271	Tin (Sn)	7440-31-5	0.1246	0.67%	98.00%	
			Copper (Cu)	7440-50-8	0.0025	0.01%	2.00%	
			<i>Subtotal</i>		<i>0.1271</i>	<i>0.69%</i>	<i>100%</i>	
5	Die	0.6980	Silicon (Si)	7440-21-3	0.6811	3.68%	97.58%	
			Nickel (Ni)	7440-02-0	0.0090	0.05%	1.29%	
			Silver (Ag)	7440-22-4	0.0056	0.03%	0.80%	
			Gold (Au)	7440-57-5	0.0023	0.01%	0.33%	
			<i>Subtotal</i>		<i>0.6980</i>	<i>3.77%</i>	<i>100%</i>	
6	Die attach	0.0297	Silver (Ag)	7440-22-4	0.0249	0.13%	83.70%	
			Epoxy Resin	-	0.0048	0.03%	16.30%	
			<i>Subtotal</i>		<i>0.0297</i>	<i>0.16%</i>	<i>100%</i>	
7	Bonding wire	0.2730	Gold (Au)	7440-57-5	0.2730	1.47%	100.00%	
			<i>Subtotal</i>		<i>0.2730</i>	<i>1.47%</i>	<i>100%</i>	
				<i>Total</i>	-	<i>18.5254</i>	<i>100%</i>	-

Note
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