

**ON Semiconductor** 9/20/2020

<b>Base Part</b>	<b>MBRA120ET3</b>	<b>HF</b>	
<b>Orderable Part</b>	<b>NRVBA120ENT3G</b>	<b>Total weight (mg)</b>	<b>76.66</b>

Homogenous Material	Weight (mg)	Substance in Mat.	CAS #	% Avg. Weight
Clip	7	Zinc (Zn)	7440-66-6	0.12
		Iron (Fe)	7439-89-6	2.35
		Copper (Cu)	7440-50-8	97.5
		Phosphorus (P)	7723-14-0	0.03
Die	1.12	Silicon (Si)	7440-21-3	100
Die Attach Solder	3.45	Silver (Ag)	7440-22-4	2.5
		Lead (Pb)	7439-92-1	92.5
		Tin (Sn)	7440-31-5	5
Lead Frame	28.84	Zinc (Zn)	7440-66-6	0.12
		Iron (Fe)	7439-89-6	2.4
		Copper (Cu)	7440-50-8	97.4
		Phosphorus (P)	7723-14-0	0.08
Mold Compound-Black	34.87	Ortho Cresol Novolac Resin	29690-82-2	10
		Carbon Black (C)	1333-86-4	0.5
		Aluminum Hydroxide (Al(OH)3)	21645-51-2	14.5
		Fused Silica (SiO2)	60676-86-0	65
		Phenolic Resin (Novolac)	9003-35-4	10
Plating	1.38	Tin (Sn)	7440-31-5	100

**Materials Disclosure Disclaimer:** Even though all possible efforts have been made to provide you with the most accurate information, we cannot guarantee to its accuracy since the data has been compiled based on the ranges provided, and some information provided by the subcontractors and raw material suppliers may have been withheld to protect their business proprietary information. Thus this information is provided only as estimates, and do not include trace levels for dopants and metal materials contained within silicon devices in the finished products. There is no intentional use of RoHS restricted substances. Lead (Pb) and lead oxide (PbO) are exempted with the RoHS exemption 7(a), 7(c) and 15. For further explanation on material composition calculations, please view our Product Chemical Content Brochure at:

<https://www.onsemi.com/pub/Collateral/BRD8022-D.PDF>