Material Declaration Sheet

Draloric/Beyschlag Resistor

Date	6/6/2016

Part / Product Family Details

Part / Family Series	RoHS Compliance Status	RoHS Compliance Date Code dd-mmm-yyyy	Total product Weight (mg)	Value Range	3rd Party Lab ICP Test Report Available	Manufacturing Location	Number of Exemptions Used
CRCW2010 e3 Series (2K to 10M)	YES WITH EXEMPTION	16-Oct-2004	23.651667	2K to 10M	Yes	Israel	Three

Technical Information

Terminal Plating / Grid Array Material	Terminal Base Alloy	JESD-97 Pb-Free Material Code Marking	J-STD-20D MSL Rating	Reflow Peak Process Body Temperature	Reflow Maximum number of cycles	Reflow Max.Time at Peak Temperature (sec)	Soldering Compatibility (SnPb/Pb-Free)
Sn	Other	e3	1	260 ° C	3	40	Backward & Forward

Material Composition

Homogenous Material Name	Material Classification	Substance Name	CAS number	Weight of Substance (mg)	With respect to Homogenous Material		% with respect to Total Product Weight	RoHS Exemptions Used
					%	ppm		
Ceramic substrate				21.31015				
	Magnesium Oxide	Magnesium Oxide	1309-48-4	0.21097	0.99	9900	0.89	0 - None
	Aluminium Oxide	Aluminium Oxide	1344-28-1	20.35119	95.50	955000	86.05	0 - None
	Silicon Dioxide	Silicon Dioxide	7631-86-9	0.62013	2.91	29100	2.62	0 - None
	Miscellaneous	Miscellaneous	System	0.12786	0.60	6000	0.54	0 - None
Nickel Barrier				0.38920				
	Nickel	Nickel	7440-02-0	0.38920	100.00	1000000	1.65	0 - None
Passivation				0.14191				
	Lead(2+) Silicate	Lead(2+) Silicate	10099-76-0	0.13893	97.90	979001	0.59	Exemption No: -7(c)-I
	Chromium (III) Oxide	Chromium (III) Oxide	1308-38-9	0.00298	2.10	20999	0.01	0 - None
Resistive layer				0.16556				
	Lead(2+) Silicate	Lead(2+) Silicate	10099-76-0	0.04967	30.00	300012	0.21	Exemption No: -7(c)-I
	Ruthenium (Iv) Oxide	Ruthenium (Iv) Oxide	12036-10-1	0.03311	20.00	199988	0.14	0 - None
	LEAD RUTHENIUM OXIDE	LEAD RUTHENIUM OXIDE	59707-49-2	0.01656	10.00	100024	0.07	Exemption No: -7(c)-I
	Palladium	Palladium	7440-05-3	0.01655	10.00	99964	0.07	0 - None
	Silver	Silver	7440-22-4	0.04967	30.00	300012	0.21	0 - None
Termination				0.56725				
	Lead(2+) Silicate	Lead(2+) Silicate	10099-76-0	0.01134	2.00	19991	0.05	Exemption No: -7(c)-I
	Dibismuth Trioxide	Dibismuth Trioxide	1304-76-3	0.01702	3.00	30004	0.07	0 - None
	Copper Oxide (Derivaties-1)	Copper Oxide (Derivaties-1)	1317-38-0	0.00567	1.00	9996	0.02	0 - None
	Silver	Silver	7440-22-4	0.53321	94.00	939983	2.25	0 - None
	Chromium	Chromium	7440-47-3	0.00001	0.001	10	0.00002	0 - None
	Copper	Copper	7440-50-8	0.00001	0.002	16	0.00004	0 - None
Tin Plating				0.72281				
	Tin	Tin	7440-31-5	0.72281	100.00	1000000	3.06	0 - None
Top Caot Marking				0.35478				
	Epoxy Resine	Epoxy Resine	25068-38-6	0.04387	12.36	123645	0.19	0 - None
	Silicon Dioxide	Silicon Dioxide	7631-86-9	0.31091	87.64	876355	1.31	0 - None

EU-RoHS Directive-2011/65/EU MCV of 0.1% by mass (1000 PPM) in homogeneous material for: Lead (Pb), Mercury, Hexavalent Chromium, Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE) and MCV of 0.01% by mass cadmium

Exemption Used 7(c)-I) Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectronic devices, or in a glass or ceramic matrix compound

2nd Exemption Used 7(c)-I) Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectronic devices, or in a glass or ceramic matrix compound

3rd Exemption Used 7(c)-I) Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectronic devices, or in a glass or ceramic matrix compound

Note :- (i) All information is based on data received from our vendors & subjected to change without prior notice.
(ii) Substance weight are derived from MSDS.