



Material Declaration Sheet

Draloric/Beyschlag Resistor

Date: 7/19/2016

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
CRCW2512 e3 (10R to less than 1M)	YES WITH EXEMPTION	16/10/2004	39.4498021	10R to less than 1M	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				36.09629				
	Ceramic substrate	Magnesium Oxide	1309-48-4	0.35735	0.99	9900	0.91	0 - None
		Aluminium Oxide	1344-28-1	34.47196	95.50	955000	87.38	0 - None
		Silicon Dioxide	7631-86-9	1.05040	2.91	29100	2.66	0 - None
		Miscellaneous	System	0.21658	0.60	6000	0.55	0 - None
Nickel Barrier				0.50370				
	Nickel Barrier	Nickel	7440-02-0	0.50370	100.00	1000000	1.28	0 - None
Passivation				0.23670				
	Passivation	Lead(2+) Silicate	10099-76-0	0.23173	97.90	979003	0.59	Exemption No: -7(c)-I
		Chromium (III) Oxide	1308-38-9	0.00497	2.10	20997	0.01	0 - None
Resistive layer				0.27615				
	Resistive layer	Lead(2+) Silicate	10099-76-0	0.08284	30.00	299982	0.21	Exemption No: -7(c)-I
		Ruthenium (IV) Oxide	12036-10-1	0.05523	20.00	200000	0.14	0 - None
		Palladium	7440-05-3	0.02762	10.00	100018	0.07	0 - None
		Silver	7440-22-4	0.11046	40.00	400000	0.28	0 - None
Termination				0.84894				
	Termination	Lead(2+) Silicate	10099-76-0	0.01698	2.00	20001	0.04	Exemption No: -7(c)-I
		Dibismuth Trioxide	1304-76-3	0.02547	3.00	30002	0.06	0 - None
		Copper Oxide (Derivatives-1)	1317-38-0	0.00849	1.00	10001	0.02	0 - None
		Silver	7440-22-4	0.79798	94.00	939973	2.02	0 - None
		Chromium	7440-47-3	0.00001	0.00	9	0.00	0 - None
		Copper	7440-50-8	0.00001	0.00	14	0.00	0 - None
Tin Plating				0.93543				
	Tin Plating	Tin	7440-31-5	0.93543	100.00	1000000	2.37	0 - None
Top Coat Marking				0.55259				
	Top Coat Marking	Epoxy Resine	25068-38-6	0.06832	12.36	123636	0.17	0 - None
		Silicon Dioxide	7631-86-9	0.48427	87.64	876364	1.23	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.

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