

ROHS Material Declaration

Product Series	Material	ROHS Compliant	Pb Free Termination	Maximum Solder Temperature (°C)	% by Weight																									
					Ba	Zr	Ca	Sr	Nd	Nb	Mg	Ti	Pd	Ag	Ni	Sn	Cu	Al	Rh	Sm	Bi	Pr	Zn	Pb	Cd	Cr VI	Hg	PBDE	PBB	Trace of other Elements
HVC	NPO ≤180 pF	Y	Y	265	0	40	25	10	0	0	0.2	1.5	0	0	3	7	10	0.7	2.6	0	0	0	0	0	0	0	0	0	0	0.00
	NPO ≤180 pF (Super term.)	Y	Y	265	0	39	24	9	0	0	0.2	1.5	0	3	3	7	10	0.7	2.6	0	0	0	0	0	0	0	0	0	0	0.00
	NPO >180 pF	Y	Y	265	12	1	0	0	34	0	0	26.74	2	10	3	7	0	0.3	2.5	0	0	1.08	0.2	0.4*	0	0	0	0	0	0.18
	NPO >180 pF (Super term.)	Y	Y	265	11	1	0	0	33	0	0	26.74	1	13	3	7	0	0.3	2.5	0	0	1.08	0.2	0.4*	0	0	0	0	0	0.18
	X7R	Y	Y	265	58	0	0	0	0.4	0.7	0	19	1	10	3	7	0	0.2	0	0	0.54	0	0	0	0	0	0	0	0	0.16
	X7R (super term.)	Y	Y	265	57	0	0	0	0.4	0.7	0	18	1	12	3	7	0	0.2	0	0	0.54	0	0	0	0	0	0	0	0	0.16
SCC	NPO ≤180 pF	Y	Y	265	0	40	25	10	0	0	0.2	1.5	0	0	3	7	10	0.7	2.6	0	0	0	0	0	0	0	0	0	0.00	
	NPO ≤180 pF (Super term.)	Y	Y	265	0	39	24	9	0	0	0.2	1.5	0	3	3	7	10	0.7	2.6	0	0	0	0	0	0	0	0	0	0	0.00
	NPO >180 pF	Y	Y	265	12	1	0	0	34	0	0	26.75	2	10	3	7	0	0.3	2.5	0	0	1.07	0.2	0.4*	0	0	0	0	0	0.18
	NPO >180 pF (Super term.)	Y	Y	265	11	1	0	0	33	0	0	26.75	1	13	3	7	0	0.3	2.5	0	0	1.07	0.2	0.4*	0	0	0	0	0	0.18
	X7R	Y	Y	265	58	0	0	0	0.4	0.7	0	19	1	10	3	7	0	0.2	0	0	0.54	0	0	0	0	0	0	0	0	0.16
	X7R (super term.)	Y	Y	265	57	0	0	0	0.4	0.7	0	18	1	12	3	7	0	0.2	0	0	0.54	0	0	0	0	0	0	0	0	0.16
TCX	X7E	Y	Y	265	54	0	0	0	0.3	0.6	0	21	2	10	3	7	0	1.2	0.5	0.3844	0	0	0	0	0	0	0	0	0	0.02
LDC	X7E	Y	Y	265	54	0	0	0	0.3	0.6	0	21	2	10	3	7	0	1.2	0.5	0.3844	0	0	0	0	0	0	0	0	0	0.02
NCC	NPO	Y	Y	265	44	0	0	0	0	0	0	15	0	0	4	21	7	0.2	0	0	0	3.5	5.3	0	0	0	0	0	0	0.00
	X7R	Y	Y	265	51	0	0	0	0.6	1.2	0	20	0	0	13	12	1	0.3	0.3	0	0	0	0.6	0	0	0	0	0	0	0.00
	X5R	Y	Y	265	51	0	0	0	0	0.03	0	12	0	0	15	10	6	0.3	0.3	0	0	0	5.37	0	0	0	0	0	0	0.00
	Y5V	Y	Y	265	50.4	0	0	0	0	0	0	13	0	0	5.25	22	2.3	0.1	0	0.35	0	2.1	4.5	0	0	0	0	0	0	0.00
HCC	X7R	Y	Y	265	51	0	0	0	0.6	1.2	0	20	0	0	13	12	1	0.3	0.3	0	0	0	0.6	0	0	0	0	0	0	0.00
	X5R	Y	Y	265	51	0	0	0	0	0.03	0	12	0	0	15	10	6	0.3	0.3	0	0	0	5.37	0	0	0	0	0	0	0.00
	Y5V	Y	Y	265	50.4	0	0	0	0	0	0	13	0	0	5.25	22	2.3	0.1	0	0.35	0	2.1	4.5	0	0	0	0	0	0	0.00
HCN	NPO	Y	Y	265	18.28	0	0	0	21.9	0	0.23	34.06	0.28	10	3	7	0	0.2	0	0.65	0	0.3	1.3	1.7*	0	0	0	0	2.80	
HCC	X7R	Y	Y	265	51	0	0	0	0.6	1.2	0	20	0	0	13	12	1	0.3	0.3	0	0	0	0.6	0	0	0	0	0	0	0.00
VAC	X5R	Y	Y	265	51	0	0	0	0	0.03	0	12	0	0	15	10	6	0.3	0.3	0	0	0	5.37	0	0	0	0	0	0	0.00
	Y5V	Y	Y	265	50.4	0	0	0	0	0	0	13	0	0	5.25	22	2.3	0.1	0	0.35	0	2.1	4.5	0	0	0	0	0	0	0.00
	Y5U	Y	Y	265	51	0	0	0	0.6	1.2	0	20	0	0	13	12	1	0.3	0.3	0	0	0	0.6	0	0	0	0	0	0	0.00
RFC	NPO	Y	Y	265	48	0	0	0	0	0	0	18	0	0	5	18	0	2.2	0	0	0	3.5	5.3	0	0	0	0	0	0	0.00
	NPO	Y	Y	265	44	0	0	0	0	0	0	15	0	0	4	21	7	0.2	0	0	0	3.5	5.3	0	0	0	0	0	0	0.00
	X7R	Y	Y	265	51	0	0	0	0.6	1.2	0	20	0	0	13	12	1	0.3	0.3	0	0	0	0.6	0	0	0	0	0	0	0.00
	Y5V	Y	Y	265	50.4	0	0	0	0	0	0	13	0	0	5.25	22	2.3	0.1	0	0.35	0	2.1	4.5	0	0	0	0	0	0	0.00
MCA	X7R	Y	Y	265	51	0	0	0	0.6	1.2	0	20	0	0	13	12	1	0.3	0.3	0	0	0	0.6	0	0	0	0	0	0	0.00
	Y5V	Y	Y	265	50.4	0	0	0	0	0	0	13	0	0	5.25	22	2.3	0.1	0	0.35	0	2.1	4.5	0	0	0	0	0	0	0.00
SAC	X7R	Y	Y	265	51	0	0	0	0.6	1.2	0	20	0	0	13	12	1	0.3	0.3	0	0	0	0.6	0	0	0	0	0	0	0.00
	Y5U	Y	Y	265	51	0	0	0	0.6	1.2	0	20	0	0	13	12	1	0.3	0.3	0	0	0	0.6	0	0	0	0	0	0	0.00

* Pb content content in ceramic dielectrics are exempt from RoHS per Annex 7 Article 4.1.
Referenced material content is typical and does not constitute a specification.
All products are periodically subject to elemental analysis and this declaration is subject to change.