Page 1

ams-OSRAM AG Tobelbader Strasse 30 A-8141 Premstaetten, Austria Tel +43 (0) 3136 500-0

CALL OSRAM

Ordering Code	Production Version	Package Family	Assembly Material Number	Lead Count	Weight Manufacturing (mg) Country	Halogen Free	EU RoHS	China Rohs	Release Status	Report Version
TCS37203	Supplier 1	OLGA	512262023	12	16.78 China	YES	YES	YES	FULL	1

Production Version: Supplier 1

Homogenous Material	Weight (mg)	Symbol	Chemical Substance	Input Ratio (%)	CAS Number	Unit Weight (mg)	Unit Weight (%)	Amount (ppm)
DAF	0.15	C15H16O2	Epoxy Resin	45.00	25068-38-6	0.06525	0.38889	3889
		SiO2	Silicon Dioxide	55.00	7631-86-9	0.07975	0.47531	4753
		Subtotal:		100.00		0.14500	0.86420	8642
Moldcompound	1.84		2,6-Ditert.butyl-4- Methyl	1.00	128-37-0	0.01842	0.10978	1098
			Bisphenol A epoxy resin	55.00	25068-38-6	1.01310	6.03808	60381
			Tetra hydrophthalic anhydride	30.00	85-43-8	0.55260	3.29350	32935
			Triglycidyl isocyanurate	14.00	2451-62-9	0.25788	1.53696	15370
		Subtotal:		100.00		1.84200	10.97832	109783
IC	10.2	Si	Silicon	100.00	7440-21-3	10.20000	60.79199	607920
		Subtotal:		100.00		10.20000	60.79199	607920
Substrate (Au Plating)	0.03	Au	Gold	100.00	7440-57-5	0.03357	0.20008	2001
		Subtotal:		100.00		0.03357	0.20008	2001
Substrate (Cu Plating)	0.33	Cu	Copper	100.00	7440-50-8	0.33011	1.96743	19674
		Subtotal:		100.00		0.33011	1.96743	19674

Page 2

ams-OSRAM AG Tobelbader Strasse 30 A-8141 Premstaetten, Austria Tel +43 (0) 3136 500-0

amu osram

Ordering Code	Production Version	Package Family	Assembly Material Number	Lead Count	Weight Manufacturing (mg) Country	Halogen Free	EU RoHS	China Rohs	Release Status	Report Version
TCS37203	Supplier 1	OLGA	512262023	12	16.78 China	YES	YES	YES	FULL	1

Production Version: Supplier 1

Homogenous Material	Weight (mg)	Symbol	Chemical Substance	Input Ratio (%)	CAS Number	Unit Weight (mg)	Unit Weight (%)	Amount (ppm)
Substrate (Ni Plating)	0.17	Ni	Nickel	100.00	7440-02-0	0.16785	1.00039	10004
		Subtotal:		100.00		0.16785	1.00039	10004
Plugging Ink	0.02	10H13CIO3	Bisphenol F Copolymer	10.00	9003-36-5	0.00170	0.01013	101
		SiO2	Silica for Substrates	65.00	60676-86-0	0.01105	0.06586	659
			GLYCIDYL AMINO RESIN	25.00	110656-67-2	0.00425	0.02533	253
		Subtotal:		100.00		0.01700	0.10132	1013

Page 3

ams-OSRAM AG Tobelbader Strasse 30 A-8141 Premstaetten, Austria Tel +43 (0) 3136 500-0

CALL OSRAM

Ordering Code	Production Version	Package Family	Assembly Material Number	Lead Count	Weight Manufacturing (mg) Country	Halogen Free	EU RoHS	China Rohs	Release Status	Report Version
TCS37203	Supplier 1	OLGA	512262023	12	16.78 China	YES	YES	YES	FULL	1

Production Version: Supplier 1

Homogenous Material	Weight (mg)	Symbol	Chemical Substance	Input Ratio (%)	CAS Number	Unit Weight (mg)	Unit Weight (%)	Amount (ppm)
Solder Mask	0.31	C7H10O3	Glycidyl methacrylate	50.00	106-91-2	0.15650	0.93274	9327
			2-(2-ethoxyethoxy) ethyl acetate	10.00	112-15-2	0.03130	0.18655	1865
			Diphenyl (2,4,6 trimethylbenzoyl) phosphine oxide	2.50	75980-60-8	0.00783	0.04664	466
			Dipropylene glycol monomethyl ether	25.00	34590-94-8	0.07825	0.46637	4664
			Heavy aromatic solvent naphtha	10.00	64742-94-5	0.03130	0.18655	1865
			ISOCYANURIC ACID TRIS(2- ACRYLOYLOXYETH YL) ESTER	2.50	40220-08-4	0.00783	0.04664	466
		Subtotal:		100.00		0.31300	1.86548	18655
Substrate (Core)	2.12	SiO2	Silica for Substrates	23.70	60676-86-0	0.50339	3.00019	30002
			Copper Foil	15.80	7440-50-8	0.33559	2.00013	20001
			DOPO	3.20	35948-25-5	0.06797	0.40509	4051
			E-Glass Fabric	33.60	65997-17-3	0.71366	4.25344	42534
			Epoxy Resin	23.70	29690-82-2	0.50339	3.00019	30002
		Subtotal:		100.00		2.12400	12.65904	126590

Page 4

ams-OSRAM AG Tobelbader Strasse 30 A-8141 Premstaetten, Austria Tel +43 (0) 3136 500-0

amu osram

Ordering Code	Production Version	Package Family	Assembly Material Number	Lead Count	Weight Manufacturing (mg) Country	Halogen Free	EU RoHS	China Rohs	Release Status	Report Version
TCS37203	Supplier 1	OLGA	512262023	12	16.78 China	YES	YES	YES	FULL	1

Production Version: Supplier 1

Homogenous Material	Weight (mg)	Symbol	Chemical Substance	Input Ratio (%)	CAS Number	Unit Weight (mg)	Unit Weight (%)	Amount (ppm)
Wire	1.61	Au	Gold	100.00	7440-57-5	1.60600	9.57176	95718
		Subtotal:		100.00		1.60600	9.57176	95718
Total:	16.78					16.78	100.00000	1000000