

**Material Data Declaration Sheet**

**ECS INC. INTERNATIONAL**

Supplier Part Number	ECS-2012MV-327KE Series
Product Description	2.0 x 1.2mm 32.768kHz SMD Multi-Volt Oscillator
Product Revision	
Product Total Weight	0.0054g/pcs



Contact Information	Company	ECS INC. INTERNATIONAL
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Homogenous Component/Subcomponent	Homogenous Component/Subcomponent Weight (g)	Substance	CAS number	Substance Weight (g)	(If Available) (Substance Weight/Total Homogenous Component or Subcomponent Weight*1000000)	Purpose/Location
Ceramic Base	0.003800000	Al <sub>2</sub> O <sub>3</sub>	1344-28-1	0.002250000	592105	Ceramic
		Mn <sub>2</sub> O <sub>3</sub>	1317-34-6	0.000080000	21053	Ceramic
		SiO <sub>2</sub>	7631-86-9	0.000080000	21053	Ceramic
		MoO <sub>3</sub>	1313-27-5	0.000010000	2632	Ceramic
		MgO	1309-48-4	0.000010000	2632	Ceramic
		Mo	7439-98-7	0.000480000	126316	Metalize
		Fe	7439-89-6	0.000280000	73684	Seal Ring
		Co	7440-48-4	0.000150000	39474	Seal Ring
		Ni	7440-02-0	0.000090000	23684	Seal Ring
		Ag	7440-22-4	0.000160000	42105	Silver Solder
		Cu	7440-50-8	0.000030000	7895	Silver Solder
		Ni	7440-02-0	0.000110000	28947	Electrode
		Co	7440-48-4	0.000030000	7895	Electrode
		Au	7440-57-5	0.000039990	10524	Electrode
Tl	7440-28-0	0.000000010	3	Electrode		
LID	0.000990000	Fe	7439-89-6	0.000476900	481717	Alloy
		Co	7440-48-4	0.000151800	153333	Alloy
		Ni	7440-02-0	0.000356400	360000	Alloy
		Mn	7439-96-5	0.000003800	3838	Alloy
		Si	7440-21-3	0.000000600	606	Alloy
		Cr	7440-47-3	0.000000400	404	Alloy
		C	7440-44-0	0.000000100	101	Alloy
Blank	0.000110000	SiO <sub>2</sub>	14808-60-7	0.000105495	959045	Quartz crystal
		Cr	7440-47-3	0.000000868	7891	Electrode
		Au	7440-57-5	0.000003637	33064	Electrode
Conductive Adhesive	0.000200000	Ag	7440-22-4	0.000150000	750000	Adhesive
		Silicone Resin	67763-03-5	0.000032000	160000	Adhesive
		n-Dodecane	112-40-3	0.000016000	80000	Adhesive
		Alkoxysilane	3388-04-3	0.000002000	10000	Adhesive
Underfill	0.000143000	Acid anhydride(A)	19438-60-9	0.000035750	250000	Underfill
		Liquid epoxy(bisphenol A)	25068-38-6	0.000014300	100000	Underfill
		Epoxy Compound	27610-48-6	0.000002860	20000	Underfill
		Epoxy Resin	5026-74-4	0.000002860	20000	Underfill
		Liquid epoxy(bisphenol F)	9003-36-5	0.000002860	20000	Underfill
		SiO <sub>2</sub>	14808-60-7	0.000081510	570000	Underfill
		Acid anhydride(B)	85-42-7	0.000002574	18000	Underfill
C	1333-86-4	0.000000286	2000	Underfill		
IC	0.000157000	Si	7440-21-3	0.000156028	993809	IC
		Al	7429-90-5	0.000000939	5981	IC
		Ti	7440-32-6	0.000000017	108	IC
		W	7440-33-7	0.000000016	102	IC