

Product Compliance Declaration

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Contact Information

Name Molex Product Compliance E-Mail Product.Compliance@molex.com

Part Information

Part Number 0022032121 Part Weight 0.800059G

Part Name KK 100 Hdr Flat Vert Tin 12Ckt

Product Composition

Name	Туре	CAS Number	Proportion (% Total)	Mass (Grams)
KK 100 Hdr Flat Vert Tin 12Ckt	Assembly		100	0.800059
.560 x .0261 Sq Brass Bando Pin Tin	Assembly		76.5017	0.612059
.560 x .0261 Sq Brass Bando Pin Unplated	Component		73.4946	0.588
Cartridge Brass 70% Unplated	Material		73.4946	0.588
Copper	Substance	7440-50-8	51.4462	0.4116
Zinc (metal)	Substance	7440-66-6	22.0484	0.1764
Tin Plating	Material		1.3573	0.010859
Tin	Substance	7440-31-5	1.3573	0.010859
Nickel Plating	Material		1.6499	0.0132
Nickel	Substance	7440-02-0	1.6497	0.013199
Further Additives, not to declare	Substance	system	0.0002	0.000001
KK 100 Header Flat 12 Ckt 4030-12	Component		23.4983	0.188
PA66 WHITE	Material		23.4983	0.188

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Name	Туре	CAS Number	Proportion (% Total)	Mass (Grams)
PA66	Substance		19.9735	0.1598
Flame Retardant, ISO 1043-4 FR(30)	Substance		2.3498	0.0188
Further Additives, not to declare	Substance	system	1.1749	0.0094

ROHS Declaration Information

Regulatory Revision EU 2015/863

Compliance Status Compliant

Contained Substances Exceeding Threshold

None

Exemptions

None

REACH-SVHC Declaration Information

Regulatory Revision D(2020)4578-DC (25 June 2020)

Contained Substances Exceeding Threshold

Substance Group	Substance Location	Threshold (PPM)	Concentration (PPM)	Intentionally Added
6-methoxy-m-toluidine	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
Dipentyl phthalate	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
tricosafluorododecanoic acid	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
heptacosafluorotetradecanoic acid	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
dodecamethylcyclohexasiloxane	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
decamethylcyclopentasiloxane	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	1,100	Impurity
benzene-1,2,4-tricarboxylic acid 1,2-anhydride	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	1,010	Impurity
octamethylcyclotetrasiloxane	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
disodium 3,3'-[[1,1'-biphenyl]-4,4'-diylbis(azo)]bis(4-aminonaphthalene-1-	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
1,2-Benzenedicarboxylic acid, bis(3-methylbutyl) ester (9Cl)	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity

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Substance Group	Substance Location	Threshold (PPM)	Concentration (PPM)	Intentionally Added
methoxyacetic acid	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
dibutyltin dichloride	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
4,4'-methylenedi-o-toluidine	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
1-vinylimidazole	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
1,3-propanesultone	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
chromium trioxide	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
disodium 4-amino-3-[[4'-[(2,4-diaminophenyl)azo][1,1'-biphenyl]-4-yl]azo]-5-	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
henicosafluoroundecanoic acid	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
furan	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
1-bromopropane	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
nitrobenzene	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
4-o-tolylazo-o-toluidine	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
ethylene thiourea	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
4-methyl-m-phenylenediamine	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
o-toluidine	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
butyl 4-hydroxybenzoate	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
dinoseb (ISO)	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
dihexyl phthalate (DnHP)	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
dicyclohexyl phthalate	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	1,010	Impurity
N-methylacetamide	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
dimethyl sulphate	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
diethyl sulphate	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
4-aminoazobenzene	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
Fatty acids, C16-18, lead salts	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
[phthalato(2-)]dioxotrilead	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
Silicic acid (H2Si2O5), barium salt (1:1), lead-doped	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
Perfluorohexane-1-sulphonic acid and its salts	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
5-sec-butyl-2-(2,4-dimethylcyclohex-3-en-1-yl)-5-methyl-1,3-dioxane [1], 5-sec-butyl-2-(4,6-	<u> </u>	1,000	2,000	Impurity
1,2-benzenedicarboxylic acid, di-C6-10-alkyl esters; 1,2-benzenedicarboxylic acid, mixed	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity

Substance Group	Substance Location	Threshold (PPM)	Concentration (PPM)	Intentionally Added
Cadmium sulphate	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
Sodium perborate; perboric acid, sodium salt	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
hexahydro-2-benzofuran-1,3-dione	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
Perfluorononan-1-oic acid (2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,9-	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
Reaction products of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and 4-heptylphenol,	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
Dodecachloropentacyclo[12.2.1.16,9.02,13.05,1 0]octadeca-7,15-diene ("Dechlorane Plus" TM)	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
Chrysene	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
Cadmium nitrate	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	1,005	Impurity
Pyrene	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
Tris(4-nonylphenyl, branched and linear) phosphite (TNPP) with ≥ 0.1% w/w of 4-	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
2,3,3,3-tetrafluoro-2- (heptafluoropropoxy)propionic acid, its salts and	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated [covering well-defined substances and UVCB	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
Trixylyl phosphate	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
Zirconia Aluminosilicate Refractory Ceramic Fibres	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
Aluminosilicate Refractory Ceramic Fibres	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
Boric acid	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
Disodium tetraborate	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
Hydrazine	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
1,3-BENZENEDIOL, TRINITRO-, LEAD SALT	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
n-pentyl-isopentylphthalate	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
3-ethyl-2-methyl-2-(3-methylbutyl)-1,3- oxazolidine	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
1,2-Benzenedicarboxylic acid, dipentyl ester, branched and linear	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
pentacosafluorotridecanoic acid	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
Terphenyl, hydrogenated	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	1,100	Impurity
2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec- butyl)phenol	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
dibutylbis(pentane-2,4-dionato-O,O')tin	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity

Substance Group	Substance Location	Threshold (PPM)	Concentration (PPM)	Intentionally Added
2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
Disodium-octaborate	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	1,100	Impurity
sodium peroxometaborate	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
Ammonium-pentadecafluorooctanoate	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
pentazinc chromate octahydroxide	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
1,2-dichloroethane	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
trilead diarsenate	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
2-methoxyaniline	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
arsenic acid	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
N,N-dimethylacetamide	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
lead dipicrate	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
potassium hydroxyoctaoxodizincatedichromate(1-)	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
bis(2-methoxyethyl) ether	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
Calcium-arsenate	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
N-methyl-2-pyrrolidone	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
1,2-Benzenedicarboxylic acid, di-C7-11- branched and linear alkyl esters	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
2-ethoxyethyl acetate	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
Cobalt sulphate	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
Acetic acid, cobalt(2+) salt	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
Carbonic acid, cobalt(2+) salt (1:1)	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
Boric acid, disodium salt, hydrate	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
sodium chromate	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
potassium dichromate	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
potassium chromate	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
ammonium dichromate	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
Tris(2-chloroethyl) phosphate	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
Lead sulfochromate yellow	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
Lead chromate molybdate sulfate red	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity

Substance Group	Substance Location	Threshold (PPM)	Concentration (PPM)	Intentionally Added
lead chromate	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
Anthracene oil, anthracene-low; Anthracene Oil Fraction	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
Anthracene oil, anthracene paste, distn. lights; Anthracene Oil Fraction	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
Anthracene oil, anthracene paste, anthracene fraction; Anthracene Oil Fraction	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
Anthracene oil, anthracene paste; Anthracene Oil Fraction	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
Butylbenzylphthalate (BBP)	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
lead hydrogen arsenate	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
bis(2-ethylhexyl) phthalate (DEHP)	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
dibutyl phthalate (DBP)	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
4,4'-diaminodiphenylmethane	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
triethyl arsenate	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
Sulfurous acid, lead salt, dibasic	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
Acetic acid, lead salt, basic	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
cadmium hydroxide	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	1,005	Impurity
Lead titanium zirconium oxide	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
dioxobis(stearato)trilead	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
tetralead trioxide sulphate	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
Trilead-dioxide-phosphonate	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
pentalead tetraoxide sulphate	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
lead oxide sulfate	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
Silicic acid, lead salt	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
cadmium chloride	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
lead dinitrate	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
pyrochlore, antimony lead yellow	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
Cadmium-fluoride	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
cadmium	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
lead	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	1,100	Impurity
α,α-Bis[4-(dimethylamino)phenyl]-4 (phenylamino)naphthalene-1-methanol [with ≥	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
[4-[[4-anilino-1-naphthyl][4- (dimethylamino)phenyl]methylene]cyclohexa-2,5	.560 x .0261 Sq Brass Bando Pin	1,000	2,000	Impurity

Substance Group	Substance Location	Threshold (PPM)	Concentration (PPM)	Intentionally Added
1,3,5-tris(oxiranylmethyl)-1,3,5- triazine-2,4,6(1H,3H,5H)-trione	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
Lead oxide	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
trilead bis(carbonate) dihydroxide	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
orange lead	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
cadmium sulphide	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
cadmium oxide (non-pyrophoric)	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
Diboron-trioxide	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
bis(pentabromophenyl) ether	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
4,4'-bis(dimethylamino)-4"-(methylamino)trityl alcohol [with ≥ 0.1% of Michler's ketone (EC No.	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
[4-[4,4'-bis(dimethylamino) benzhydrylidene]cyclohexa-2,5-dien-1-	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
cadmium carbonate	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	1,005	Impurity
1,2-dimethoxyethane	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
4,4'-bis(dimethylamino)benzophenone	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
dichromium tris(chromate)	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
phenolphthalein	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
lead diazide	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
1,2-Benzenedicarboxylic acid, bis(2-methoxyethyl) ester	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity
Formaldehyde, polymer with benzenamine	.560 x .0261 Sq Brass Bando Pin Unplated	1,000	2,000	Impurity

GADSL Declaration Information

Regulatory Revision GADSL imported from IMDS

Contained Substances Exceeding Threshold

Substance Group	Substance Location	Threshold (PPM)	Concentration (PPM)	Intentionally Added
lead	Cartridge Brass 70% (CA260)	*Note	350	Yes
lead	e-plate Sn (electrodeposited Tin Coatings, bright and matt)	*Note	500	Yes
nickel powder [particle diameter < 1 mm]	Ep-Ni	*Note	997,500	Yes
copper	Cartridge Brass 70% (CA260)	*Note	700,000	Yes

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*Note: For GADSL substance declarable/prohibited threshold values, please reference http://www.gadsl.org/

Exemptions

Part Name	Exemption
Cartridge Brass 70% (CA260)	44 Concentration within acceptable GADSL limits
e-plate Sn (electrodeposited Tin Coatings, bright and matt)	44 Concentration within acceptable GADSL limits
Ep-Ni	33 Other application (Surface not routinely touched or nickel release rate < 0.5µg/cm2/week)

HFLH Declaration Information

Regulatory Revision IEC 61249-2-21

Contained Substances Exceeding Threshold

None

China ROHS Declaration Information

Part Number 0022032121 Part Name KK 100 Hdr Flat Vert Tin 12Ckt						
Part Information		Haz	zardous S	Substance	es	
Components	Lead	Mercury	Cadmium	Hex. Chromium	PBB	PBDE
KK 100 Hdr Flat Vert Tin 12Ckt	0	0	0	0	0	0
.560 x .0261 Sq Brass Bando Pin Tin	0	0	0	0	0	0
.560 x .0261 Sq Brass Bando Pin Unplated	0	0	0	0	0	0
KK 100 Header Flat 12 Ckt 4030-12	0	0	0	0	0	0

Process Information

Component Plating / Surface Finish	MSn-RNi
Termination Base Alloy	Brass
Solder Alloy	N/A
Process Capability	WAVE

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Maximum Exposure Time (seconds)	005
Maximum Process Temperature (C)	235
Maximum Cycles at Reflow Temperature	001
J-STD-020 Moisture Sensitivity Level	N/A

Jan 11, 2021