

Full Material Declaration for PZU5.6BL

Date	2025-02-01 20:37:21 CET+0100
Package	SOD882 (DFN1006-2): 0.48 mm × 0.6 mm × 1.0 mm
Description	Single Zener diodes
Datasheet	https://assets.nexperia.com/documents/data-sheet/PZUXBL_SER.pdf
OPNs	934061669315: PZU5.6BL,315 (RFS), MSL 1
Automotive-qualified	Yes
UL-94	https://iq.ulprospector.com/en/profile?e=594631



REACH	Compliant with Regulation 1907/2006/EC (REACH). Does not contain REACH SVHC substances exceeding 1000 ppm of the article.
EU RoHS	Compliant with Directive 2011/65/EU, amended by Directive 2015/863/EU, on the restriction of the use of certain hazardous substances in electrical and electronic equipment ('RoHS 2 amended') without exemptions.
CN RoHS	Compliant with Chinese Administration on the Control of Pollution Caused by Electronic Information Products (ACPEIP; CN RoHS).
ELV	Compliant with Directive 2000/53/EC, amended by Directive 2023/533, on end of life vehicles (ELV) without exemptions.
PFAS	Does not contain any intentionally added per- and polyfluoroalkyl substances (PFAS).
CA Proposition 65	Contains California Proposition 65 substance(s) [at the article level]: substance 7440-02-0: 19185 ppm; substance 1333-86-4: 2382 ppm; substance 7439-92-1: 1 ppm;
IEC 62474	Contains IEC 62474 substance(s) [at the article level]: substance 7440-02-0: 19185 ppm; substance 1333-86-4: 2382 ppm; substance 7439-92-1: 1 ppm;
Precious Metals	Contains precious metals [Ag, Au, Pd, Pt; at the article level]: substance 7440-22-4: 8046 ppm; substance 7440-05-3: 738 ppm; substance 7440-57-5: 4958 ppm;
GADSL	Contains 'Global Automotive Declarable Substances List' (GADSL) substances: substance 7440-22-4: 8046 ppm; substance 7440-50-8: 410148 ppm; substance 7440-02-0: 19186 ppm; substance 7439-95-4: 868 ppm; substance 7440-05-3: 738 ppm; substance 7439-92-1: 1 ppm;
RHF Indicator	D: Lead-free and halogen-free according to Nexperia's halogen-free definition.

Material	Mat. Group	Substance	CAS No.	Mass / mg	Mass-% of Material	Mass-% of Part
Adhesive	Filler	Silver (Ag)	7440-22-4	0.007600	76.000000	0.804608
Adhesive	Polymer	Phenolic resin		0.001353	13.530000	0.143241
Adhesive	Polymer	Formaldehyde, polymer with (chloromethyl)oxirane and phenol	9003-36-5	0.001047	10.470000	0.110845
Adhesive Total				0.010000	100.000000	1.058694
Die	Doped silicon	Silicon (Si)	7440-21-3	0.050000	100.000000	5.293470
Die Total				0.050000	100.000000	5.293470
Lead Frame	Copper alloy	Copper (Cu)	7440-50-8	0.387409	94.490000	41.014758
Lead Frame	Copper alloy	Nickel (Ni)	7440-02-0	0.012915	3.150000	1.367303
Lead Frame	Copper alloy	Silicon (Si)	7440-21-3	0.002829	0.690000	0.299505
Lead Frame	Copper alloy	Magnesium (Mg)	7439-95-4	0.000820	0.200000	0.086813
Base Alloy Total				0.403973	98.530000	42.768379
Lead Frame	Pure metal layer	Nickel (Ni)	7440-02-0	0.005207	1.270000	0.551262
Pre-Plating 1 Total				0.005207	1.270000	0.551262
Lead Frame	Pure metal layer	Palladium (Pd)	7440-05-3	0.000697	0.170000	0.073791
Pre-Plating 2 Total				0.000697	0.170000	0.073791
Lead Frame	Pure metal layer	Gold (Au)	7440-57-5	0.000123	0.030000	0.013022
Pre-Plating 3 Total				0.000123	0.030000	0.013022
Lead Frame Total				0.410000	100.000000	43.406454
Mould Compound	Filler	Silica fused	60676-86-0	0.270000	60.000000	28.584738

Material	Mat. Group	Substance	CAS No.	Mass / mg	Mass-% of Material	Mass-% of Part
Mould Compound	Filler	Silica	7631-86-9	0.103500	23.000000	10.957483
Mould Compound	Polymer	Epoxy resin system		0.031500	7.000000	3.334886
Mould Compound	Polymer	Phenolic resin		0.027000	6.000000	2.858474
Mould Compound	Flame retardant	Aluminium hydroxide (Al(OH)3)	21645-51-2	0.013500	3.000000	1.429237
Mould Compound	Pigment	Carbon black	1333-86-4	0.002250	0.500000	0.238206
Mould Compound	Ion trapping agent	Bismuth (Bi)	7440-69-9	0.002250	0.500000	0.238206
Mould Compound Total				0.450000	100.000000	47.641230
Post-Plating	Tin solder	Tin (Sn)	7440-31-5	0.019988	99.940000	2.116117
Post-Plating	Impurity	Non-declarable		0.000011	0.055500	0.001165
Post-Plating	Impurity	Lead (Pb)	7439-92-1	0.000001	0.004500	0.000106
Post-Plating Total				0.020000	100.000000	2.117388
Wire	Pure metal	Gold (Au)	7440-57-5	0.004560	99.990000	0.482764
Wire	Impurity	Non-declarable		0.000000	0.010000	0.000000
Wire Total				0.004560	100.000000	0.482764
PZU5.6BL Total				0.944560	100.000000	100.000000

部件名称 Material	有毒或有害物质和元素 (Toxic or hazardous substances and elements)					
	铅 (Pb)	镉 (Cd)	汞 (Hg)	六价铬 (Cr ⁶⁺)	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
胶黏剂 (Adhesive)	○	○	○	○	○	○
半导体芯片 (Die)	○	○	○	○	○	○
基底合金 (Base Alloy)	○	○	○	○	○	○
预镀层1 (Pre-Plating 1)	○	○	○	○	○	○
预镀层2 (Pre-Plating 2)	○	○	○	○	○	○
预镀层3 (Pre-Plating 3)	○	○	○	○	○	○
模封料 (Mould Compound)	○	○	○	○	○	○
后镀层 (Post-Plating)	○	○	○	○	○	○
导线 (Wire)	○	○	○	○	○	○

表示该有害物质在该部件所有均质材料中的含量均在 GB/T 26572 规定的限量要求以下

○ Indicates that said hazardous substance contained in all of the homogeneous materials for this part is below the limit requirement of GB/T 26572.

表示该有害物质至少在该部件的某一均质材料中的含量超出 GB/T 26572 规定的限量要求

× Indicates that said hazardous substance contained in at least one of the homogeneous materials used for this part is above the limit requirement of GB/T 26572.

该半导体产品具有无限期的环保使用期限 (EFUP) 。

This semiconductor product has an indefinite environmental friendly use period (EFUP).

All information in this document is furnished for exploratory or indicative purposes only. All information in this document is believed to be accurate and reliable. However, Nexperia does not give any representations or warranties as to the accuracy or completeness of such information and shall have no liability for the consequences of use of such information. Nexperia may make changes to information published in this document at any time and without notice. Minor deviations may occur in the products from different manufacturing location. This document supersedes and replaces all information supplied prior to the publication hereof. Nothing in this document may be interpreted or construed as an offer to sell products that is open for acceptance or the grant, conveyance or implication of any license under any copyrights, patents or other industrial or intellectual property rights.