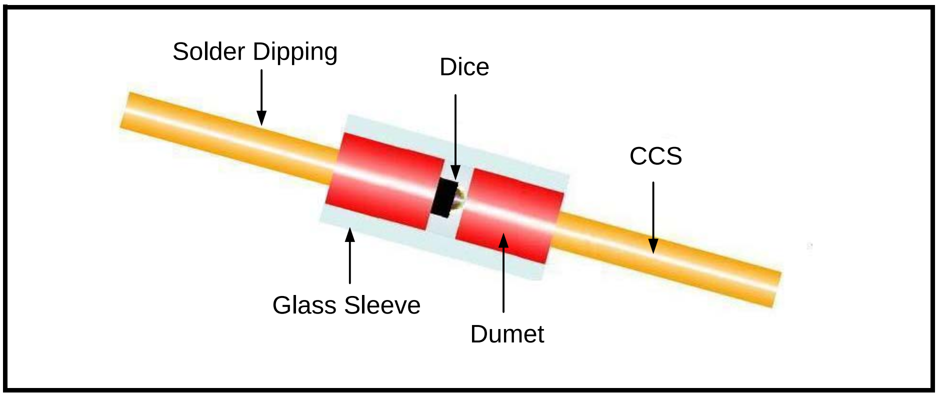
先 科 電 子 有 限 公 司
SEMTECH ELECTRONICS LIMITED
Subsidiary of a Sino-Tech International(BVI) Limited

Chemical Composition of Diode (DO-34)



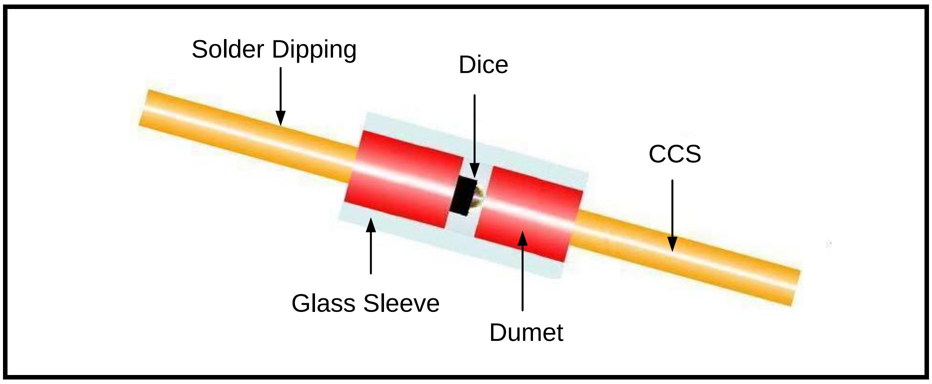
Weight: 92 mg / pc

15-Nov-07

Make up of material		Chemical Composition	CAS No.	Content Spec. (%)	Content (%)	Substance Weight (mg)
Solder Dipping (0.4 mg)		Sn	7440-31-5	99.95 min.	99.97	0.39988
		Others	——	0.05 max.	0.03	0.00012
Glass Sleeve (26.08 mg)		Pb	7439-92-1	61	61	15.9088
		Si	7440-21-3	32	32	8.3456
		K	7440-09-7	3.8	3.8	0.99104
		B	7440-42-8	3	3	0.7824
		Sb	7440-36-0	0.06	0.06	0.015648
		Others	——	0.14	0.14	0.036512
Lead Wire-Dumet (8.1 mg)	Core material (6.156 mg)	Ni	7440-02-0	41-43	42.15	2.594754
		Fe	7439-89-6	balance	57.85	3.561246
	Cladding copper (1.944 mg)	Cu	7440-50-8	100	100	1.944
Lead Wire-CCS (57.22 mg)		Fe	7439-89-6	82	82	46.9204
		Cu	7440-50-8	18	18	10.2996
Dice (0.05 mg)		Si	7440-21-3	70.9	70.9	0.03545
		Al	7429-90-5	0.1	0.1	0.00005
		Ag	7440-22-4	28.6	28.6	0.0143
		Ni	7440-02-0	0.4	0.4	0.00020
Ink (0.15 mg)		C	7440-44-0	100	100	0.15

Note: Lead (Pb) in glass of electronic components is exempted from RoHS directive (EU Directive 2011/65/EU)

Chemical Composition of Diode (DO-35)



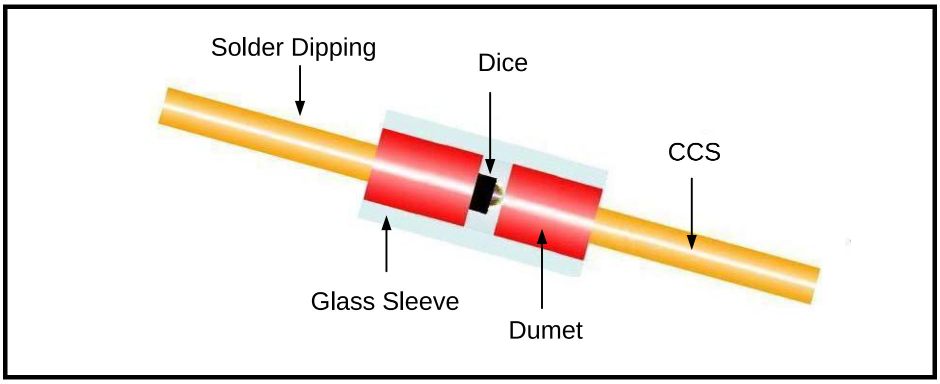
Weight: 125 mg / pc

15-Nov-07

Make up of material		Chemical Composition	CAS No.	Content Spec. (%)	Content (%)	Substance Weight (mg)
Solder Dipping (1 mg)		Sn	7440-31-5	99.95 min.	99.97	0.9997
		Others	——	0.05 max.	0.03	0.0003
Glass Sleeve (33 mg)		Pb	7439-92-1	61	61	20.13
		Si	7440-21-3	32	32	10.56
		K	7440-09-7	3.8	3.8	1.254
		B	7440-42-8	3	3	0.99
		Sb	7440-36-0	0.06	0.06	0.0198
		Others	——	0.14	0.14	0.0462
Lead Wire-Dumet (11 mg)	Core material (8.36 mg)	Ni	7440-02-0	41-43	42.15	3.52374
		Fe	7439-89-6	balance	57.85	4.83626
	Cladding copper (2.64 mg)	Cu	7440-50-8	100	100	2.64
Lead Wire-CCS (79.72 mg)		Fe	7439-89-6	82	82	65.3704
		Cu	7440-50-8	18	18	14.3496
Dice (0.05 mg)		Si	7440-21-3	70.9	70.9	0.03545
		Al	7429-90-5	0.1	0.1	0.00005
		Ag	7440-22-4	28.6	28.6	0.0143
		Ni	7440-02-0	0.4	0.4	0.0002
Ink (0.23 mg)		C	7440-44-0	100	100	0.23

Note: Lead (Pb) in glass of electronic components is exempted from RoHS directive (EU Directive 2011/65/EU)

Chemical Composition of Diode (DO-41 Glass)



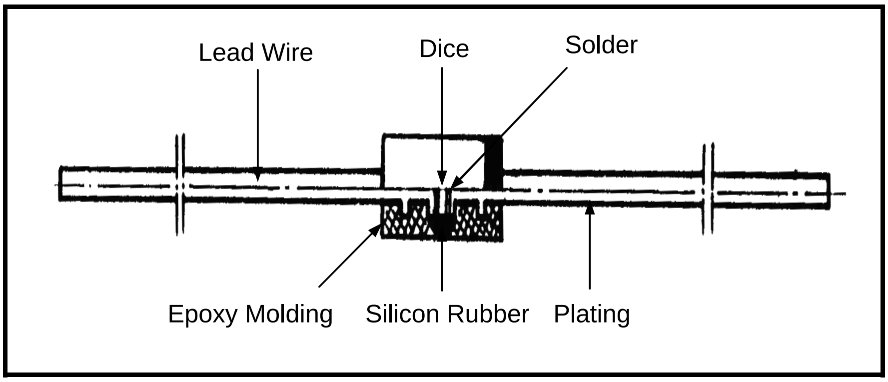
Weight: 253 mg / pc

15-Nov-07

Make up of material		Chemical Composition	CAS No.	Content Spec. (%)	Content (%)	Substance Weight (mg)
Solder Dipping (5 mg)		Sn	7440-31-5	99.95 min.	99.97	4.9985
		Others	——	0.05 max.	0.03	0.0015
Glass Sleeve (49.835 mg)		Pb	7439-92-1	61	61	30.39935
		Si	7440-21-3	32	32	15.9472
		K	7440-09-7	3.8	3.8	1.89373
		B	7440-42-8	3	3	1.49505
		Sb	7440-36-0	0.06	0.06	0.029901
		Others	——	0.14	0.14	0.069769
Lead Wire-Dumet (47.234 mg)	Core material (35.89784 mg)	Ni	7440-02-0	41-43	42.15	15.13093956
		Fe	7439-89-6	balance	57.85	20.76690044
	Cladding copper (11.33616 mg)	Cu	7440-50-8	100	100	11.33616
Lead Wire-CCS (150.336 mg)		Fe	7439-89-6	82	82	123.27552
		Cu	7440-50-8	18	18	27.06048
Dice (0.165 mg)		Si	7440-21-3	70.9	70.9	0.116985
		Al	7429-90-5	0.1	0.1	0.000165
		Ag	7440-22-4	28.6	28.6	0.04719
		Ni	7440-02-0	0.4	0.4	0.00066
Ink (0.43 mg)		C	7440-44-0	100	100	0.43

Note: Lead (Pb) in glass of electronic components is exempted from RoHS directive (EU Directive 2011/65/EU)

Chemical Composition of Diode (DO-41 Plastic)



Weight: 328 mg / pc

15-Nov-07

Make up of material	Chemical Composition	CAS No.	Content Spec. (%)	Content (%)	Substance Weight (mg)
Plating (5.757 mg)	Sn	7440-31-5	99.95 min.	99.97	5.7552729
	Others	——	0.05 max.	0.03	0.0017271
Solder (0.5 mg)	Pb	7439-92-1	92.5	92.5	0.4625
	Ag	7440-22-4	5	5	0.025
	Cu	7440-50-8	2.5	2.5	0.0125
Epoxy Molding (98.4 mg)	Crystalline Silica (Quartz)	14808-60-7	70 - 90	78.2	76.9488
	Cristobalite	14464-46-1	0 - 1	0.5	0.492
	Bisphenol-A Epoxy Resin	1675-54-3	3 - 20	11	10.824
	Phenolic Resin Water-Soluble	9003-35-4	2 - 15	10	9.84
	Carbon Black	1333-86-4	0.1 - 0.5	0.3	0.2952
Lead Wire (221.59 mg)	Cu	7440-50-8	100	100	221.59
Dice (0.693 mg)	Si	7440-21-3	90.8	90.8	0.629244
	P	7723-14-0	2.5	2.5	0.017325
	Ni	7440-02-0	5	5	0.03465
	Be	7440-41-7	1.7	1.7	0.011781
Silicon Rubber (1 mg)	Si	7440-21-3	100	100	1
Ink (0.06 mg)	C	7440-44-0	100	100	0.06

Note: Lead (Pb) in high melting temperature type solders is exempted from RoHS directive (EU Directive 2011/65/EU).

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SEMTECH ELECTRONICS LIMITED

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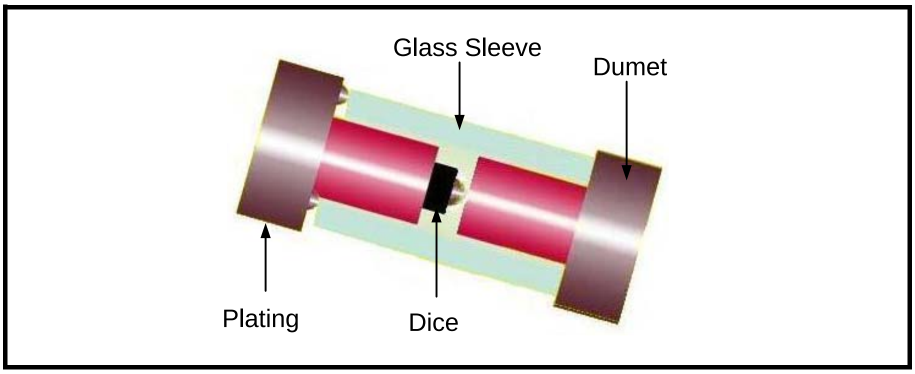
Chemical Composition of Diode (LS-31)



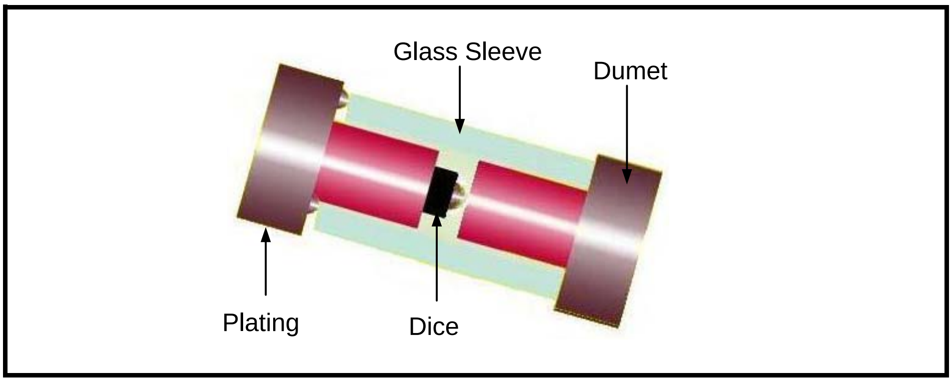
Weight: 12.3 mg / pc

15-Nov-07

Make up of material		Chemical Composition	CAS No.	Content Spec. (%)	Content (%)	Substance Weight (mg)
Plating (0.25 mg)		Sn	7440-31-5	99.95 min.	99.97	0.249925
		Others	——	0.05 max.	0.03	0.000075
Glass Sleeve (4.4 mg)		Pb	7439-92-1	61	61	2.684
		Si	7440-21-3	32	32	1.408
		K	7440-09-7	3.8	3.8	0.1672
		B	7440-42-8	3	3	0.132
		Sb	7440-36-0	0.06	0.06	0.00264
		Others	——	0.14	0.14	0.00616
Lead Wire-Dumet (7.5 mg)	Core material (5.7 mg)	Ni	7440-02-0	41-43	42.15	2.40255
		Fe	7439-89-6	balance	57.85	3.29745
	Cladding copper (1.8 mg)	Cu	7440-50-8	100	100	1.8
Dice (0.05 mg)		Si	7440-21-3	70.9	70.9	0.03545
		Al	7429-90-5	0.1	0.1	0.00005
		Ag	7440-22-4	28.6	28.6	0.0143
		Ni	7440-02-0	0.4	0.4	0.0002
Ink (0.1 mg)		C	7440-44-0	100	100	0.1

Note: Lead (Pb) in glass of electronic components is exempted from RoHS directive(EU Directive 2011/65/EU)

Chemical Composition of Diode (LS-34)



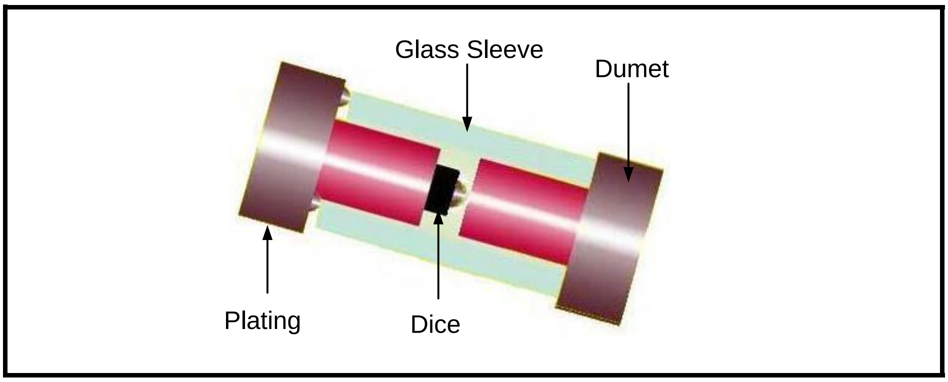
Weight: 30.8 mg / pc

15-Nov-07

Make up of material		Chemical Composition	CAS No.	Content Spec. (%)	Content (%)	Substance Weight (mg)
Plating (0.3 mg)		Sn	7440-31-5	99.95 min.	99.97	0.29991
		Others	——	0.05 max.	0.03	0.00009
Glass Sleeve (11.66 mg)		Pb	7439-92-1	61	61	7.1126
		Si	7440-21-3	32	32	3.7312
		K	7440-09-7	3.8	3.8	0.44308
		B	7440-42-8	3	3	0.3498
		Sb	7440-36-0	0.06	0.06	0.006996
		Others	——	0.14	0.14	0.016324
Lead Wire-Dumet (18.6 mg)	Core material (14.136 mg)	Ni	7440-02-0	41-43	42.15	5.958324
		Fe	7439-89-6	balance	57.85	8.177676
	Cladding copper (4.464 mg)	Cu	7440-50-8	100	100	4.464
Dice (0.05 mg)		Si	7440-21-3	70.9	70.9	0.03545
		Al	7429-90-5	0.1	0.1	0.00005
		Ag	7440-22-4	28.6	28.6	0.0143
		Ni	7440-02-0	0.4	0.4	0.0002
Ink (0.19 mg)		C	7440-44-0	100	100	0.19

Note: Lead (Pb) in glass of electronic components is exempted from RoHS directive (EU Directive 2011/65/EU)

Chemical Composition of Diode (LL-34)



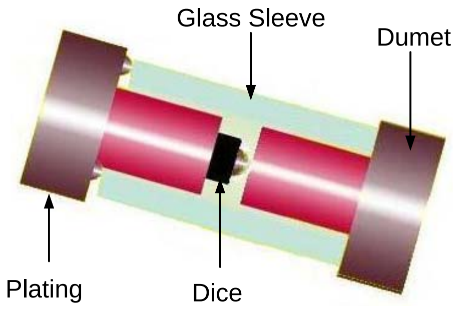
Weight: 30.6 mg / pc

15-Nov-07

Make up of material		Chemical Composition	CAS No.	Content Spec. (%)	Content (%)	Substance Weight (mg)
Plating (0.3 mg)		Sn	7440-31-5	99.95 min.	99.97	0.29991
		Others	——	0.05 max.	0.03	0.00009
Glass Sleeve (11.46 mg)		Pb	7439-92-1	61	61	6.9906
		Si	7440-21-3	32	32	3.6672
		K	7440-09-7	3.8	3.8	0.43548
		B	7440-42-8	3	3	0.3438
		Sb	7440-36-0	0.06	0.06	0.006876
		Others	——	0.14	0.14	0.016044
Lead Wire-Dumet (18.6 mg)	Core material (14.136 mg)	Ni	7440-02-0	41-43	42.15	5.958324
		Fe	7439-89-6	balance	57.85	8.177676
	Cladding copper (4.464 mg)	Cu	7440-50-8	100	100	4.464
Dice (0.05 mg)		Si	7440-21-3	70.9	70.9	0.03545
		Al	7429-90-5	0.1	0.1	0.00005
		Ag	7440-22-4	28.6	28.6	0.0143
		Ni	7440-02-0	0.4	0.4	0.0002
Ink (0.19 mg)		C	7440-44-0	100	100	0.19

Note: Lead (Pb) in glass of electronic components is exempted from RoHS directive (EU Directive 2011/65/EU)

Chemical Composition of Diode (LL-41 Glass)



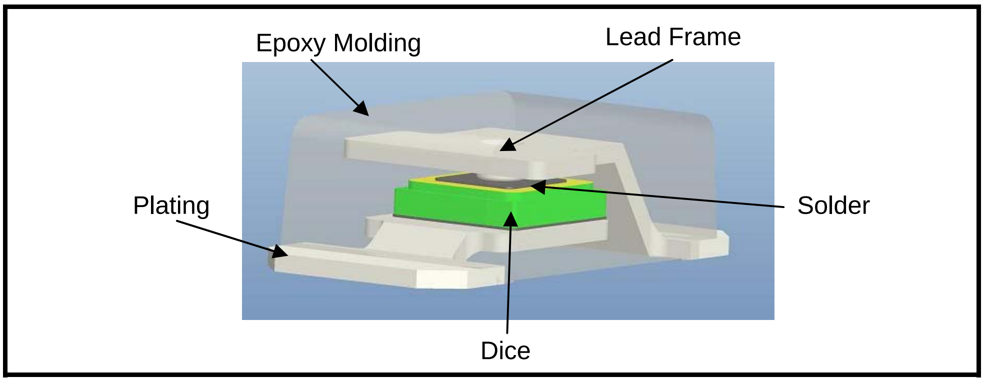
Weight: 129.9 mg / pc

15-Nov-07

Make up of material		Chemical Composition	CAS No.	Content Spec. (%)	Content (%)	Substance Weight (mg)
Plating (0.4 mg)		Sn	7440-31-5	99.95 min.	99.97	0.39988
		Others	——	0.05 max.	0.03	0.00012
Glass Sleeve (47.395 mg)		Pb	7439-92-1	61	61	28.91095
		Si	7440-21-3	32	32	15.1664
		K	7440-09-7	3.8	3.8	1.80101
		B	7440-42-8	3	3	1.42185
		Sb	7440-36-0	0.06	0.06	0.028437
		Others	——	0.14	0.14	0.066353
Lead Wire-Dumet (81.64 mg)	Core material (62.0464 mg)	Ni	7440-02-0	41-43	42.15	26.1525576
		Fe	7439-89-6	balance	57.85	35.8938424
	Cladding copper (19.5936 mg)	Cu	7440-50-8	100	100	19.5936
Dice (0.165 mg)		Si	7440-21-3	70.9	70.9	0.116985
		Al	7429-90-5	0.1	0.1	0.000165
		Ag	7440-22-4	28.6	28.6	0.04719
		Ni	7440-02-0	0.4	0.4	0.00066
Ink (0.3 mg)		C	7440-44-0	100	100	0.3

Note: Lead (Pb) in glass of electronic components is exempted from RoHS directive (EU Directive 2011/65/EU)

Chemical Composition of Diode (SOD-123 FL)



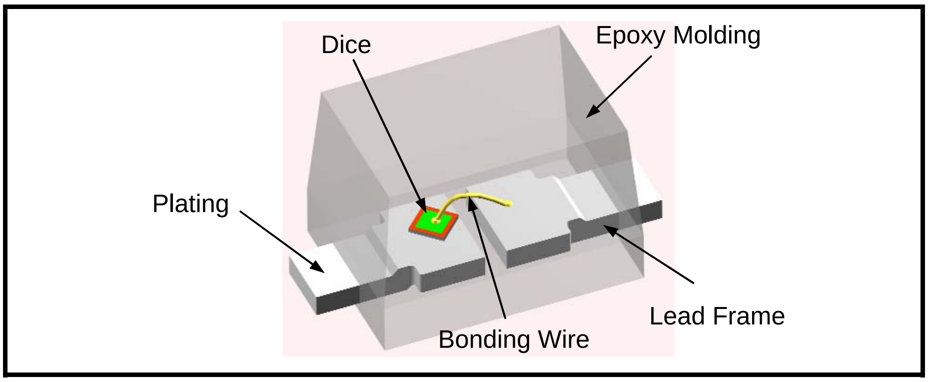
Weight:18.312mg / pc

2012-12-18

Make up of material	Chemical Composition	CAS No.	Content Spec. (%)	Content (%)	Substance Weight (mg)
Plating (0.1mg)	Sn	7440-31-5	99.95 min.	99.97	0.09990
	Others	——	0.05 max.	0.030	0.00010
Solder (0.8mg)	Pb	7439-92-1	92.5	92.5	0.74000
	Sn	7440-31-5	5	5.0	0.04000
	Ag	7440-22-4	2.5	2.50	0.02000
Epoxy Molding (8.2mg)	Silica	14808-60-7	40 - 50	45.0	3.69000
	Silicon Dioxide	7631-86-9	20 - 30	25.0	2.05000
	Epoxy Resin	Trade secret	10 - 20	15.0	1.23000
	Phenol Resin	Trade secret	1-10	7.0	0.57400
	Silica Fused	60676-86-0	1-10	7.0	0.57400
	Amorphous Ailica	112945-52-5	0.1-1	0.5	0.04100
	Pigment	1333-86-4	0.1-1	0.5	0.04100
Lead Frame (8.5mg)	Cu	7440-50-8	99.95	99.96	8.49660
	Others	——	0.05 max.	0.04	0.00340
Dice (0.712mg)	Si	7440-21-3	93.46	93.45	0.66536
	Others	——	0.05	0.05	0.00036
	PbO	1317-36-8	3.5	3.5	0.02492
	SiO_2	14808-60-7	2	2	0.01424
	Al_3O_2	1344-28-1	0.5	0.5	0.00356
	Au	12408-82-1	0.5	0.5	0.00356

Note: Lead (Pb) in high melting temperature type solders is exempted from RoHS directive (EU Directive 2011/65/EC).

Chemical Composition of Diode (SOD-123)

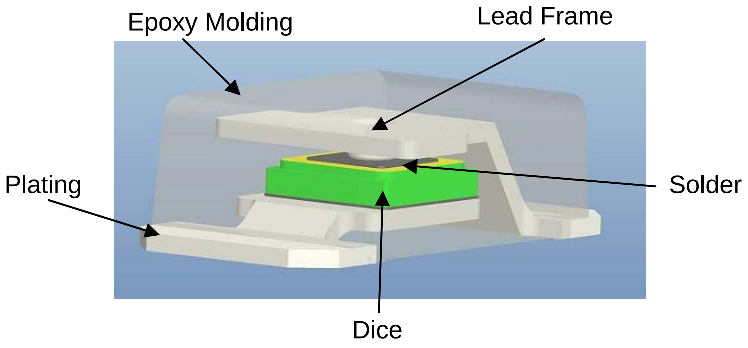


Weight: 9.15 mg / pc

15-Nov-07

Make up of material		**Chemical Composition**	**CAS No.**	**Content Spec. (%)**	**Content (%)**	**Substance Weight (mg)**
Plating (0.051 mg)		Sn	7440-31-5	99.95 min.	99.97	0.0509847
		Others	——	0.05 max.	0.03	0.0000153
Epoxy Molding (6.627 mg)		Crystalline Silica (Quartz)	14808-60-7	70 - 90	78.2	5.182314
		Cristobalite	14464-46-1	0 - 1	0.5	0.033135
		Bisphenol-A Epoxy Resin	1675-54-3	3 - 20	10	0.6627
		Phenolic Resin Water-Soluble	9003-35-4	2 - 15	9.5	0.629565
		Antimony Trioxide	1309-64-4	0.1 - 3	1.5	0.099405
		Carbon Black	1333-86-4	0.1 - 0.5	0.3	0.019881
Bonding Wire (0.005 mg)		Au	7440-57-5	99.99 min.	99.998	0.0049999
		Others	——	0.01 max.	0.002	0.0000001
Lead Frame (2.417 mg)		Alloy (Ni & Fe)	12645-50-0	98.636	98.636	2.38403212
		Cu	7440-50-8	0.168	0.168	0.00406056
		Ag	7440-22-4	1.196	1.196	0.02890732
Dice (0.05 mg)	Basis	Si	7440-21-3	94.1	94.1	0.04705
	Obverse Metal	Al	7429-90-5	0.1	0.1	0.00005
	Back Metal	Au	7440-57-5	5.8	5.8	0.0029

Chemical Composition of Diode (SOD-123 FL)



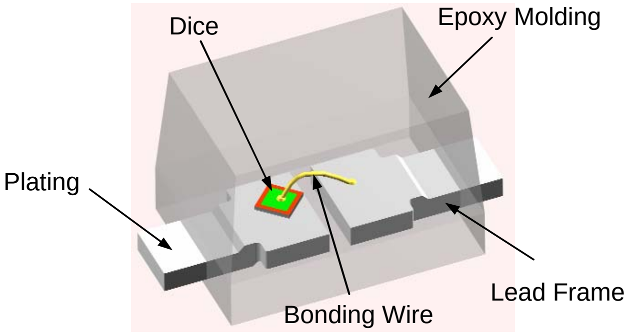
Weight:18.312mg / pc

2012-12-18

Make up of material	Chemical Composition	CAS No.	Content Spec. (%)	Content (%)	Substance Weight (mg)
Plating (0.1mg)	Sn	7440-31-5	99.95 min.	99.97	0.09990
	Others	——	0.05 max.	0.030	0.00010
Solder (0.8mg)	Pb	7439-92-1	92.5	92.5	0.74000
	Sn	7440-31-5	5	5.0	0.04000
	Ag	7440-22-4	2.5	2.50	0.02000
Epoxy Molding (8.2mg)	Silica	14808-60-7	40 - 50	45.0	3.69000
	Silicon Dioxide	7631-86-9	20 - 30	25.0	2.05000
	Epoxy Resin	Trade secret	10 - 20	15.0	1.23000
	Phenol Resin	Trade secret	1-10	7.0	0.57400
	Silica Fused	60676-86-0	1-10	7.0	0.57400
	Amorphous Ailica	112945-52-5	0.1-1	0.5	0.04100
	Pigment	1333-86-4	0.1-1	0.5	0.04100
Lead Frame (8.5mg)	Cu	7440-50-8	99.95	99.96	8.49660
	Others	——	0.05 max.	0.04	0.00340
Dice (0.712mg)	Si	7440-21-3	93.46	93.45	0.66536
	Others	——	0.05	0.05	0.00036
	PbO	1317-36-8	3.5	3.5	0.02492
	SiO_2	14808-60-7	2	2	0.01424
	Al_3O_2	1344-28-1	0.5	0.5	0.00356
	Au	12408-82-1	0.5	0.5	0.00356

Note: Lead (Pb) in high melting temperature type solders is exempted from RoHS directive (EU Directive 2011/65/EC).

Chemical Composition of Diode (SOD-123 HAF)



Weight: 9.15 mg / pc

16-Apr-09

Make up of material		**Chemical Composition**	**CAS No.**	**Content Spec. (%)**	**Content (%)**	**Substance Weight (mg)**
Plating (0.051 mg)		Sn	7440-31-5	99.95 min.	99.97	0.0509847
		Others	——	0.05 max.	0.03	0.0000153
Epoxy Molding (6.627 mg)		Silica Fused	60676-86-0	75-90	85.0	5.63295
		Epoxy Resin	29690-82-2	5-10	8.7	0.576549
		Phenolic Resin	9003-35-4	2-8	6	0.39762
		Pigment	1333-86-4	0.1-0.5	0.3	0.019881
Bonding Wire (0.005 mg)		Au	7440-57-5	99.99 min.	99.998	0.0049999
		Others	——	0.01 max.	0.002	0.0000001
Lead Frame (2.417 mg)		Alloy (Ni & Fe)	12645-50-0	98.636	98.636	2.38403212
		Cu	7440-50-8	0.168	0.168	0.00406056
		Ag	7440-22-4	1.196	1.196	0.02890732
Dice (0.05 mg)	Basis	Si	7440-21-3	94.1	94.1	0.04705
	Obverse Metal	Al	7429-90-5	0.1	0.1	0.00005
	Back Metal	Au	7440-57-5	5.8	5.8	0.0029

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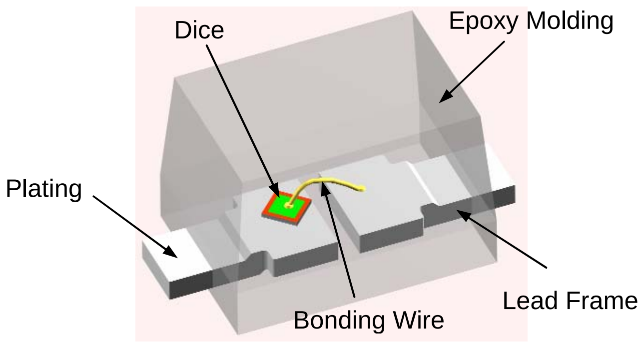
SEMTECH ELECTRONICS LIMITED
Subsidiary of a Sino-Tech International(BVI) Limited

Chemical Composition of Diode (SOD-323)

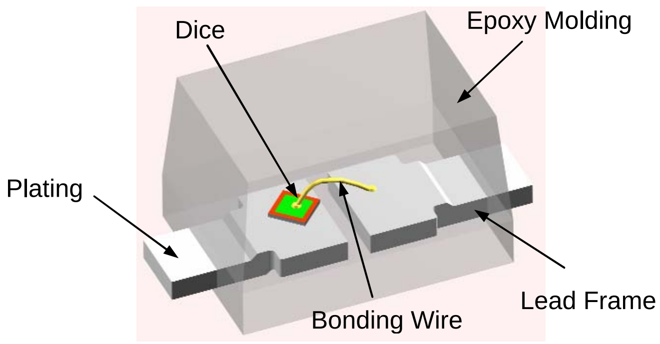


Weight: 4.6 mg / pc

15-Nov-07

Make up of material		Chemical Composition	CAS No.	Content Spec. (%)	Content (%)	Substance Weight (mg)
Plating (0.034 mg)		Sn	7440-31-5	99.95 min.	99.97	0.0339898
		Others	——	0.05 max.	0.03	0.0000102
Epoxy Molding (3.4065 mg)		Crystalline Silica (Quartz)	14808-60-7	70 - 90	78.2	2.663883
		Cristobalite	14464-46-1	0 - 1	0.5	0.0170325
		Bisphenol-A Epoxy Resin	1675-54-3	3 - 20	10	0.34065
		Phenolic Resin Water-Soluble	9003-35-4	2 - 15	9.5	0.3236175
		Antimony Trioxide	1309-64-4	0.1 - 3	1.5	0.0510975
		Carbon Black	1333-86-4	0.1 - 0.5	0.3	0.0102195
Bonding Wire (0.0045 mg)		Au	7440-57-5	99.99 min.	99.998	0.00449991
		Others	——	0.01 max.	0.002	0.00000009
Lead Frame (1.105 mg)		Alloy (Ni & Fe)	12645-50-0	98.636	98.636	1.0899278
		Cu	7440-50-8	0.168	0.168	0.0018564
		Ag	7440-22-4	1.196	1.196	0.0132158
Dice (0.05 mg)	Basis	Si	7440-21-3	94.1	94.1	0.04705
	Obverse Metal	Al	7429-90-5	0.1	0.1	0.00005
	Back Metal	Au	7440-57-5	5.8	5.8	0.0029

Chemical Composition of Diode (SOD-323 HAF)

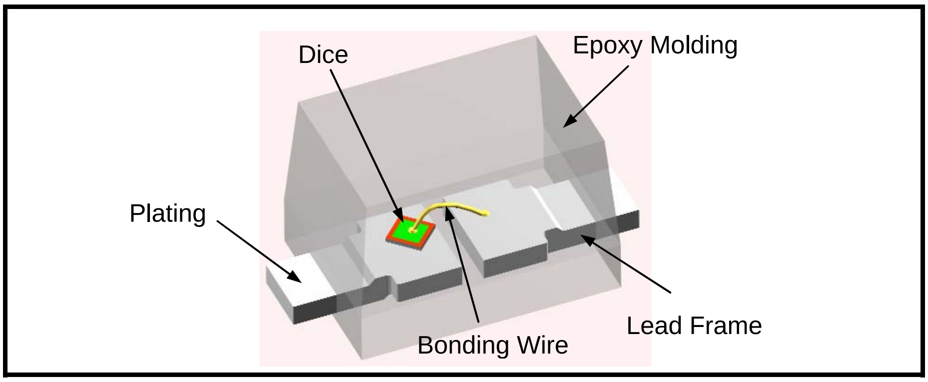


Weight: 4.6 mg / pc

16-Apr-09

Make up of material		**Chemical Composition**	**CAS No.**	**Content Spec. (%)**	**Content (%)**	**Substance Weight (mg)**
Plating (0.034 mg)		Sn	7440-31-5	99.95 min.	99.97	0.0339898
		Others	——	0.05 max.	0.03	0.0000102
Epoxy Molding (3.4065 mg)		Silica Fused	60676-86-0	75-90	85.0	2.9
		Epoxy Resin	29690-82-2	5-10	8.7	0.3
		Phenolic Resin	9003-35-4	2-8	6	0.20439
		Pigment	1333-86-4	0.1-0.5	0.3	0.0102195
Bonding Wire (0.0045 mg)		Au	7440-57-5	99.99 min.	99.998	0.00449991
		Others	——	0.01 max.	0.002	0.00000009
Lead Frame (1.105 mg)		Alloy (Ni & Fe)	12645-50-0	98.636	98.636	2.38403212
		Cu	7440-50-8	0.168	0.168	0.00406056
		Ag	7440-22-4	1.196	1.196	0.02890732
Dice (0.05 mg)	Basis	Si	7440-21-3	94.1	94.1	0.04705
	Obverse Metal	Al	7429-90-5	0.1	0.1	0.00005
	Back Metal	Au	7440-57-5	5.8	5.8	0.0029

Chemical Composition of Diode (SOD-523)

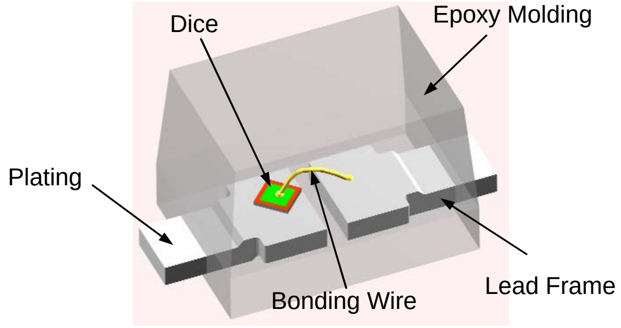


Weight: 1.47 mg / pc

15-Nov-07

Make up of material		Chemical Composition	CAS No.	Content Spec. (%)	Content (%)	Substance Weight (mg)
Plating (0.018 mg)		Sn	7440-31-5	99.95 min.	99.97	0.0179946
		Others	——	0.05 max.	0.03	0.0000054
Epoxy Molding (3.4065 mg)		Crystalline Silica (Quartz)	14808-60-7	70 - 90	78.2	0.662745
		Cristobalite	14464-46-1	0 - 1	0.5	0.0042375
		Bisphenol-A Epoxy Resin	1675-54-3	3 - 20	10	0.08475
		Phenolic Resin Water-Soluble	9003-35-4	2 - 15	9.5	0.0805125
		Antimony Trioxide	1309-64-4	0.1 - 3	1.5	0.0127125
		Carbon Black	1333-86-4	0.1 - 0.5	0.3	0.0025425
Bonding Wire (0.0035 mg)		Au	7440-57-5	99.99 min.	99.998	0.00349993
		Others	——	0.01 max.	0.002	0.00000007
Lead Frame (0.553 mg)		Alloy (Ni & Fe)	12645-50-0	98.636	98.636	0.54545708
		Cu	7440-50-8	0.168	0.168	0.00092904
		Ag	7440-22-4	1.196	1.196	0.00661388
Dice (0.048 mg)	Basis	Si	7440-21-3	94.1	94.1	0.045168
	Obverse Metal	Al	7429-90-5	0.1	0.1	0.000048
	Back Metal	Au	7440-57-5	5.8	5.8	0.002784

Chemical Composition of Diode (SOD-523 HAF)

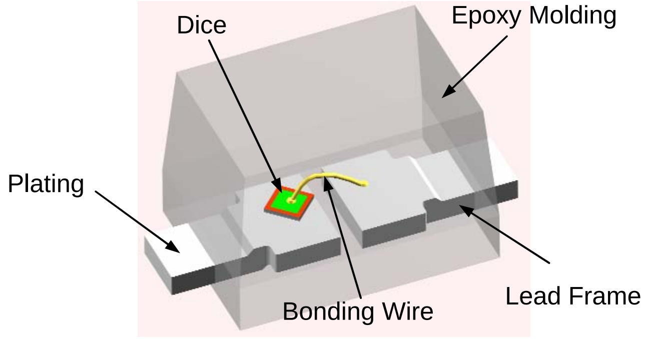


Weight: 1.47 mg / pc

16-Apr-09

Make up of material		Chemical Composition	CAS No.	Content Spec. (%)	Content (%)	Substance Weight (mg)
Plating (0.018 mg)		Sn	7440-31-5	99.95 min.	99.97	0.0179946
		Others	——	0.05 max.	0.03	0.0000054
Epoxy Molding (0.8475 mg)		Silica Fused	60676-86-0	75-90	85.0	0.720375
		Epoxy Resin	29690-82-2	5-10	8.7	0.0737325
		Phenolic Resin	9003-35-4	2-8	6	0.05085
		Pigment	1333-86-4	0.1-0.5	0.3	0.0025425
Bonding Wire (0.0035 mg)		Au	7440-57-5	99.99 min.	99.998	0.00349993
		Others	——	0.01 max.	0.002	0.00000007
Lead Frame (0.553 mg)		Alloy (Ni & Fe)	12645-50-0	98.636	98.636	0.54545708
		Cu	7440-50-8	0.168	0.168	0.00092904
		Ag	7440-22-4	1.196	1.196	0.00661388
Dice (0.048 mg)	Basis	Si	7440-21-3	94.1	94.1	0.045168
	Obverse Metal	Al	7429-90-5	0.1	0.1	0.000048
	Back Metal	Au	7440-57-5	5.8	5.8	0.002784

Chemical Composition of Diode (SOD-723)

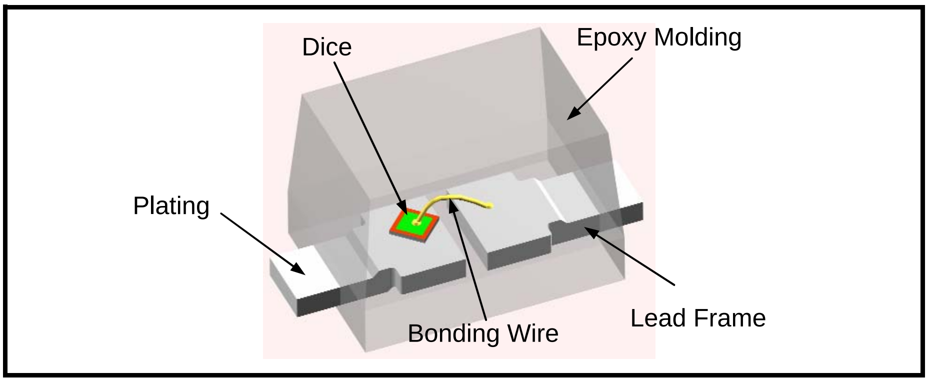


Weight:0.8470mg / pc

2011-6-21

Make up of material		Chemical Composition	CAS No.	Content Spec. (%)	Content (%)	Substance Weight (mg)
Plating (0.0324)mg		Sn	7440-31-5	99.95 min.	99.97	0.03239028
		Others	——	0.05 max.	0.03	0.00000972
Epoxy Molding (0.1456mg)		Crystalline Silica (Quartz)	14808-60-7	70 - 90	78.2	0.1138592
		Cristobalite	14464-46-1	0 - 1	0.5	0.000728
		Bisphenol-A Epoxy Resin	1675-54-3	3- 20	10	0.01456
		Phenolic Resin Water-Soluble	9003-35-4	2- 15	9.5	0.013832
		Antimony Trioxide	1309-64-4	0.1 - 3	1.5	0.002184
		Carbon Black	1333-86-4	0.1 - 0.5	0.3	0.0004368
Bonding Wire (0.0044mg)		Au	7440-57-5	99.99 min.	99.998	0.004399912
		Others	——	0.01 max.	0.002	0.000000088
Lead Frame (0.6196mg)		Alloy (Ni & Fe)	12645-50-0	98.636	98.636	0.611148656
		Cu	7440-50-8	0.168	0.168	0.001040928
		Ag	7440-22-4	1.196	1.196	0.007410416
Dice (0.045mg)	Basis	Si	7440-21-3	94.1	94.1	0.042345
	Obverse Metal	Al	7429-90-5	0.1	0.1	0.000045
	Back Metal	Au	7440-57-5	5.8	5.8	0.00261

Chemical Composition of Diode (SOD-723 HAF)

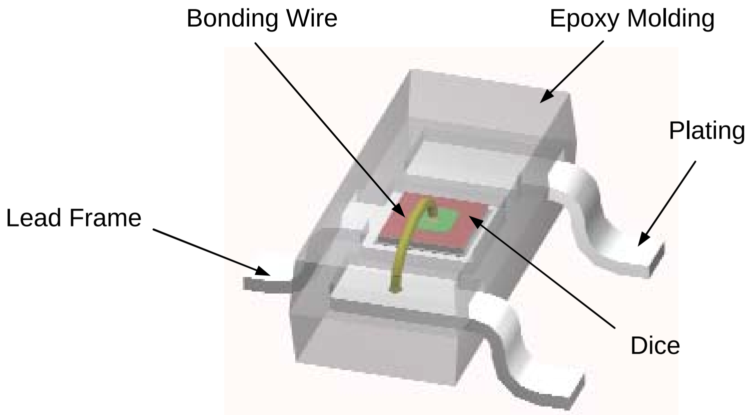


Weight:0.8470mg / pc

2011-6-21

Make up of material		Chemical Composition	CAS No.	Content Spec. (%)	Content (%)	Substance Weight (mg)
Plating (0.0324mg		Sn	7440-31-5	99.95 min.	99.97	0.03239028
		Others	——	0.05 max.	0.03	0.00000972
Epoxy Molding (0.1456mg)		Silica Fused	60676-86-0	75-90	85.0	0.12376
		Epoxy Resin	29690-82-2	5-10	8.7	0.0126672
		Phenolic Resin	9003-35-4	2-8	6	0.008736
		Pigment	1333-86-4	0.1-0.5	0.3	0.0004368
Bonding Wire (0.0044mg)		Au	7440-57-5	99.99 min.	99.998	0.004399912
		Others	——	0.01 max.	0.002	0.000000088
Lead Frame (0.6196mg)		Alloy (Ni & Fe)	12645-50-0	98.636	98.636	0.611148656
		Cu	7440-50-8	0.168	0.168	0.001040928
		Ag	7440-22-4	1.196	1.196	0.007410416
Dice (0.0450mg)	Basis	Si	7440-21-3	94.1	94.1	0.042345
	Obverse Metal	Al	7429-90-5	0.1	0.1	0.000045
	Back Metal	Au	7440-57-5	5.8	5.8	0.00261

Chemical Composition of Diode (SOT-23 Single Diode)



Weight: 8.72 mg / pc

15-Nov-07

Make up of material		Chemical Composition	CAS No.	Content Spec. (%)	Content (%)	Substance Weight (mg)
Plating (0.14 mg)		Sn	7440-31-5	99.95 min.	99.97	0.139958
		Others	——	0.05 max.	0.03	0.000042
Epoxy Molding (6.0033 mg)		Crystalline Silica (Quartz)	14808-60-7	70 - 90	78.2	4.6945806
		Cristobalite	14464-46-1	0 - 1	0.5	0.0300165
		Bisphenol-A Epoxy Resin	1675-54-3	3 - 20	10	0.60033
		Phenolic Resin Water-Soluble	9003-35-4	2 - 15	9.5	0.5703135
		Antimony Trioxide	1309-64-4	0.1 - 3	1.5	0.0900495
		Carbon Black	1333-86-4	0.1 - 0.5	0.3	0.0180099
Bonding Wire (0.038 mg)		Au	7440-57-5	99.99 min.	99.998	0.03799924
		Others	——	0.01 max.	0.002	0.00000076
Lead Frame (2.526 mg)		Alloy (Ni & Fe)	12645-50-0	98.071	98.071	2.47727346
		Cu	7440-50-8	0.381	0.381	0.00962406
		Ag	7440-22-4	1.548	1.548	0.03910248
Dice (0.0127 mg)	Basis	Si	7440-21-3	94.1	94.1	0.0119507
	Obverse Metal	Al	7429-90-5	0.1	0.1	0.0000127
	Back Metal	Au	7440-57-5	5.8	5.8	0.0007366

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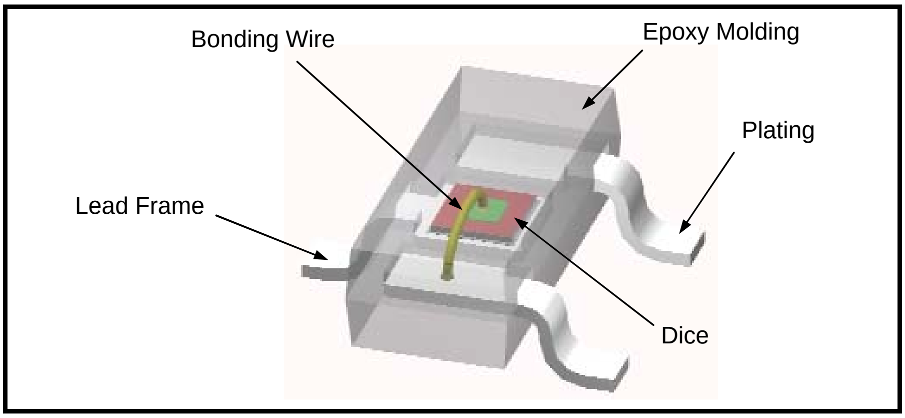
Subsidiary of a Sino-Tech International(BVI) Limited

Chemical Composition of Diode (SOT-23 Single Diode HAF)

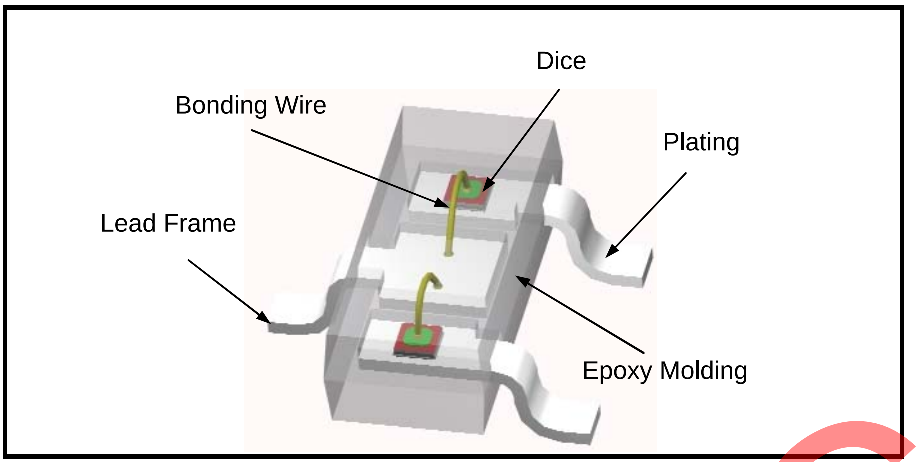


Weight: 8.72 mg / pc

16-Apr-09

Make up of material		Chemical Composition	CAS No.	Content Spec. (%)	Content (%)	Substance Weight (mg)
Plating (0.14 mg)		Sn	7440-31-5	99.95 min.	99.97	0.139958
		Others	——	0.05 max.	0.03	0.000042
Epoxy Molding (6.0033 mg)		Silica Fused	60676-86-0	75-90	85.0	5.102805
		Epoxy Resin	29690-82-2	5-10	8.7	0.5222871
		Phenolic Resin	9003-35-4	2-8	6	0.360198
		Pigment	1333-86-4	0.1-0.5	0.3	0.0180099
Bonding Wire (0.038 mg)		Au	7440-57-5	99.99 min.	99.998	0.03799924
		Others	——	0.01 max.	0.002	0.00000076
Lead Frame (2.526 mg)		Alloy (Ni & Fe)	12645-50-0	98.071	98.071	2.47727346
		Cu	7440-50-8	0.381	0.381	0.00962406
		Ag	7440-22-4	1.548	1.548	0.03910248
Dice (0.0127 mg)	Basis	Si	7440-21-3	94.1	94.1	0.0119507
	Obverse Metal	Al	7429-90-5	0.1	0.1	0.0000127
	Back Metal	Au	7440-57-5	5.8	5.8	0.0007366

Chemical Composition of Diode (SOT-23 Double Diode)

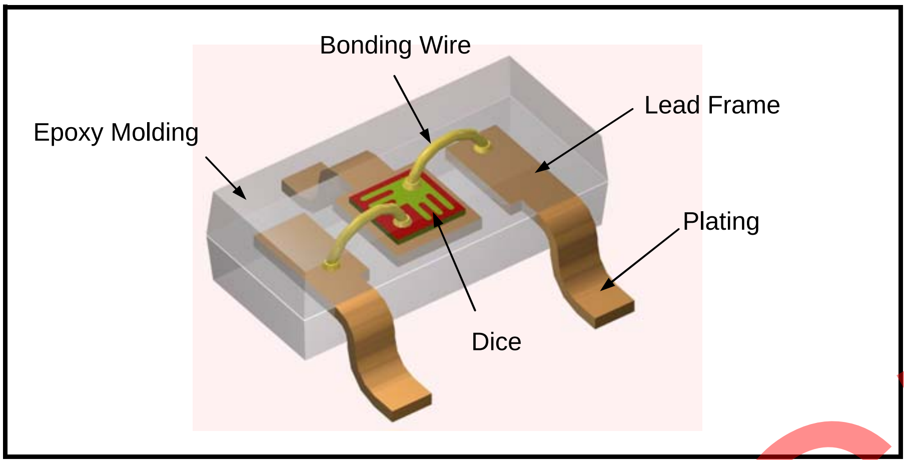


Weight: 8.72 mg / pc

15-Nov-07

Make up of material		Chemical Composition	CAS No.	Content Spec. (%)	Content (%)	Substance Weight (mg)
Plating (0.14 mg)		Sn	7440-31-5	99.95 min.	99.97	0.139958
		Others	——	0.05 max.	0.03	0.000042
Epoxy Molding (5.9526 mg)		Crystalline Silica (Quartz)	14808-60-7	70 - 90	78.2	4.6549332
		Cristobalite	14464-46-1	0 - 1	0.5	0.029763
		Bisphenol-A Epoxy Resin	1675-54-3	3 - 20	10	0.59526
		Phenolic Resin Water-Soluble	9003-35-4	2 - 15	9.5	0.565497
		Antimony Trioxide	1309-64-4	0.1 - 3	1.5	0.089289
		Carbon Black	1333-86-4	0.1 - 0.5	0.3	0.0178578
Bonding Wire (0.076 mg)		Au	7440-57-5	99.99 min.	99.998	0.07599848
		Others	——	0.01 max.	0.002	0.00000152
Lead Frame (2.526 mg)		Alloy (Ni & Fe)	12645-50-0	98.071	98.071	2.47727346
		Cu	7440-50-8	0.381	0.381	0.00962406
		Ag	7440-22-4	1.548	1.548	0.03910248
Dice (0.0254 mg)	Basis	Si	7440-21-3	94.1	94.1	0.0239014
	Obverse Metal	Al	7429-90-5	0.1	0.1	0.0000254
	Back Metal	Au	7440-57-5	5.8	5.8	0.0014732

Chemical Composition of Diodes (SOT-23 Double Diode HAF)

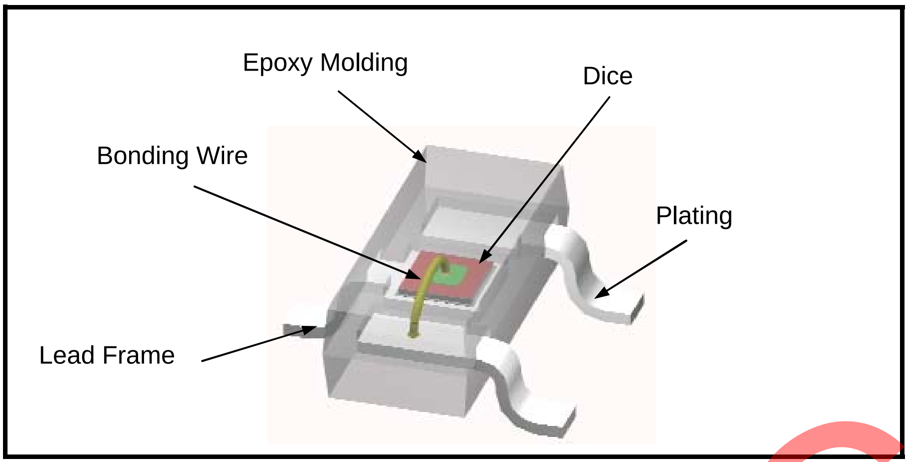


Weight: 8.72 mg / pc

16-Apr-09

Make up of material		Chemical Composition	CAS No.	Content Spec. (%)	Content (%)	Substance Weight (mg)
Plating (0.14 mg)		Sn	7440-31-5	99.95 min.	99.97	0.139958
		Others	——	0.05 max.	0.03	0.000042
Epoxy Molding (5.9526 mg)		Silica Fused	60676-86-0	75-90	85.0	5.05971
		Epoxy Resin	29690-82-2	5-10	8.7	0.5178762
		Phenolic Resin	9003-35-4	2-8	6	0.357156
		Pigment	1333-86-4	0.1-0.5	0.3	0.0178578
Bonding Wire (0.076 mg)		Au	7440-57-5	99.99 min.	99.998	0.07599848
		Others	——	0.01 max.	0.002	0.00000152
Lead Frame (2.526 mg)		Alloy (Ni & Fe)	12645-50-0	98.071	98.071	2.47727346
		Cu	7440-50-8	0.381	0.381	0.00962406
		Ag	7440-22-4	1.548	1.548	0.03910248
Dice (0.0254 mg)	Basis	Si	7440-21-3	94.1	94.1	0.0239014
	Obverse Metal	Al	7429-90-5	0.1	0.1	0.0000254
	Back Metal	Au	7440-57-5	5.8	5.8	0.0014732

Chemical Composition of Diode (SOT-323 Single Diode)



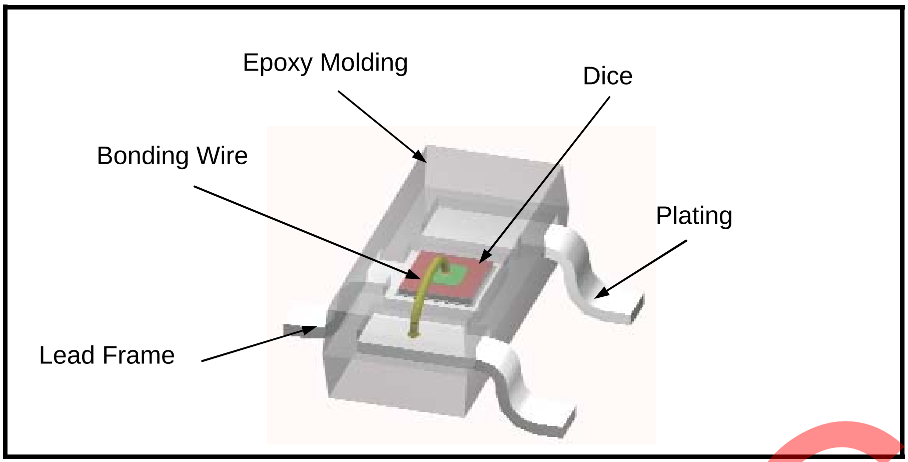
Weight: 5 mg / pc

15-Nov-07

Make up of material		Chemical Composition	CAS No.	Content Spec. (%)	Content (%)	Substance Weight (mg)
Plating (0.08 mg)		Sn	7440-31-5	99.95 min.	99.97	0.079976
		Others	——	0.05 max.	0.03	0.000024
Epoxy Molding (3.4373 mg)		Crystalline Silica (Quartz)	14808-60-7	70 - 90	78.2	2.6879686
		Cristobalite	14464-46-1	0 - 1	0.5	0.0171865
		Bisphenol-A Epoxy Resin	1675-54-3	3 - 20	10	0.34373
		Phenolic Resin Water-Soluble	9003-35-4	2 - 15	9.5	0.3265435
		Antimony Trioxide	1309-64-4	0.1 - 3	1.5	0.0515595
		Carbon Black	1333-86-4	0.1 - 0.5	0.3	0.0103119
Bonding Wire (0.022 mg)		Au	7440-57-5	99.99 min.	99.998	0.02199956
		Others	——	0.01 max.	0.002	0.00000044
Lead Frame (1.448 mg)		Alloy (Ni & Fe)	12645-50-0	98.071	98.071	1.42006808
		Cu	7440-50-8	0.381	0.381	0.00551688
		Ag	7440-22-4	1.548	1.548	0.02241504
Dice (0.0127 mg)	Basis	Si	7440-21-3	94.1	94.1	0.0119507
	Obverse Metal	Al	7429-90-5	0.1	0.1	0.0000127
	Back Metal	Au	7440-57-5	5.8	5.8	0.0007366

先科電子有限公司
SEMTECH ELECTRONICS LIMITED
Subsidiary of a Sino-Tech International(BVI) Limited

Chemical Composition of Diode (SOT-323 Single Diode HAF)

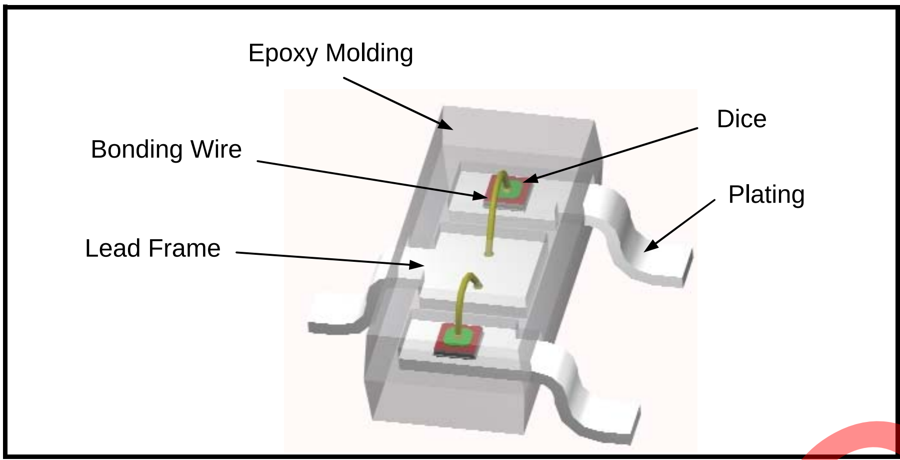


Weight: 5 mg / pc

15-Nov-07

Make up of material		Chemical Composition	CAS No.	Content Spec. (%)	Content (%)	Substance Weight (mg)
Plating (0.08 mg)		Sn	7440-31-5	99.95 min.	99.97	0.079976
		Others	——	0.05 max.	0.03	0.000024
Epoxy Molding (3.4373 mg)		Silica Fused	60676-86-0	75-90	85.0	2.921705
		Epoxy Resin	29690-82-2	5-10	8.7	0.2990451
		Phenolic Resin	9003-35-4	2-8	6	0.206238
		Pigment	1333-86-4	0.1-0.5	0.3	0.0103119
Bonding Wire (0.022 mg)		Au	7440-57-5	99.99 min.	99.998	0.02199956
		Others	——	0.01 max.	0.002	0.00000044
Lead Frame (1.448 mg)		Alloy (Ni & Fe)	12645-50-0	98.071	98.071	1.42006808
		Cu	7440-50-8	0.168	0.168	0.00551688
		Ag	7440-22-4	1.196	1.196	0.02241504
Dice (0.0127 mg)	Basis	Si	7440-21-3	94.1	94.1	0.0119507
	Obverse Metal	Al	7429-90-5	0.1	0.1	0.0000127
	Back Metal	Au	7440-57-5	5.8	5.8	0.0007366

Chemical Composition of Diode (SOT-323 Double Diode)

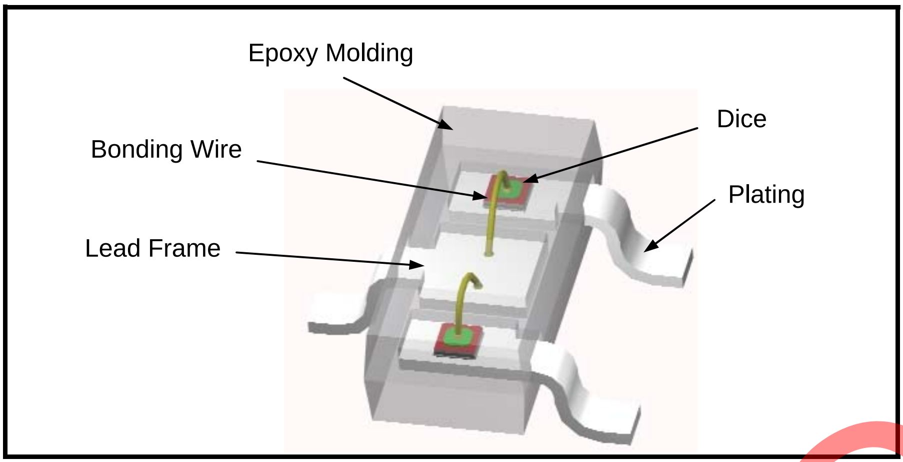


Weight: 5 mg / pc

15-Nov-07

Make up of material		**Chemical Composition**	**CAS No.**	**Content Spec. (%)**	**Content (%)**	**Substance Weight (mg)**
Plating (0.08 mg)		Sn	7440-31-5	99.95 min.	99.97	0.079976
		Others	——	0.05 max.	0.03	0.000024
Epoxy Molding (3.4026 mg)		Crystalline Silica (Quartz)	14808-60-7	70 - 90	78.2	2.6608332
		Cristobalite	14464-46-1	0 - 1	0.5	0.017013
		Bisphenol-A Epoxy Resin	1675-54-3	3 - 20	10	0.34026
		Phenolic Resin Water-Soluble	9003-35-4	2 - 15	9.5	0.323247
		Antimony Trioxide	1309-64-4	0.1 - 3	1.5	0.051039
		Carbon Black	1333-86-4	0.1 - 0.5	0.3	0.0102078
Bonding Wire (0.044 mg)		Au	7440-57-5	99.99 min.	99.998	0.04399912
		Others	——	0.01 max.	0.002	0.00000088
Lead Frame (1.448 mg)		Alloy (Ni & Fe)	12645-50-0	98.071	98.071	1.42006808
		Cu	7440-50-8	0.381	0.381	0.00551688
		Ag	7440-22-4	1.548	1.548	0.02241504
Dice (0.0254 mg)	Basis	Si	7440-21-3	94.1	94.1	0.0239014
	Obverse Metal	Al	7429-90-5	0.1	0.1	0.0000254
	Back Metal	Au	7440-57-5	5.8	5.8	0.0014732

Chemical Composition of Diode (SOT-323 Double Diode HAF)

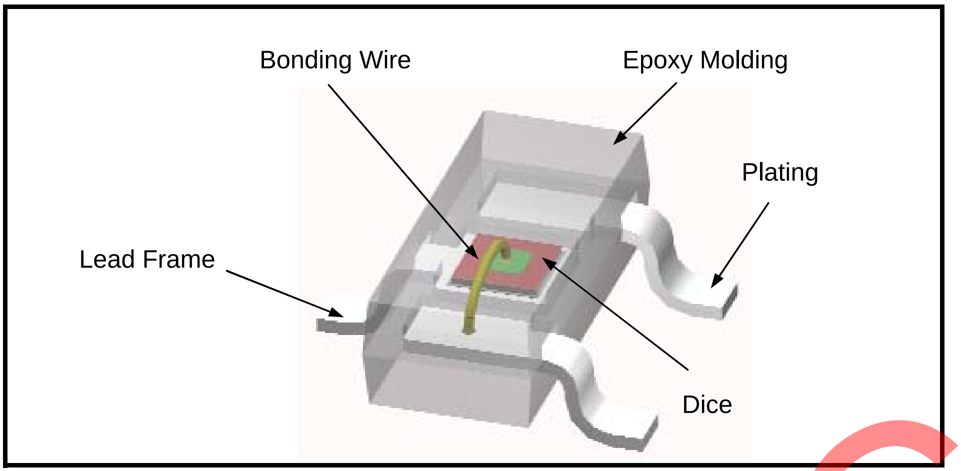


Weight: 5 mg / pc

15-Nov-07

Make up of material		Chemical Composition	CAS No.	Content Spec. (%)	Content (%)	Substance Weight (mg)
Plating (0.08 mg)		Sn	7440-31-5	99.95 min.	99.97	0.079976
		Others	——	0.05 max.	0.03	0.000024
Epoxy Molding (3.4026 mg)		Silica Fused	60676-86-0	75-90	85.0	2.89221
		Epoxy Resin	29690-82-2	5-10	8.7	0.2960262
		Phenolic Resin	9003-35-4	2-8	6	0.204156
		Pigment	1333-86-4	0.1-0.5	0.3	0.0102078
Bonding Wire (0.044 mg)		Au	7440-57-5	99.99 min.	99.998	0.04399912
		Others	——	0.01 max.	0.002	0.00000088
Lead Frame (1.448 mg)		Alloy (Ni & Fe)	12645-50-0	98.071	98.071	1.42006808
		Cu	7440-50-8	0.168	0.168	0.00551688
		Ag	7440-22-4	1.196	1.196	0.02241504
Dice (0.0254 mg)	Basis	Si	7440-21-3	94.1	94.1	0.0239014
	Obverse Metal	Al	7429-90-5	0.1	0.1	0.0000254
	Back Metal	Au	7440-57-5	5.8	5.8	0.0014732

Chemical Composition of Diode (SOT-523)

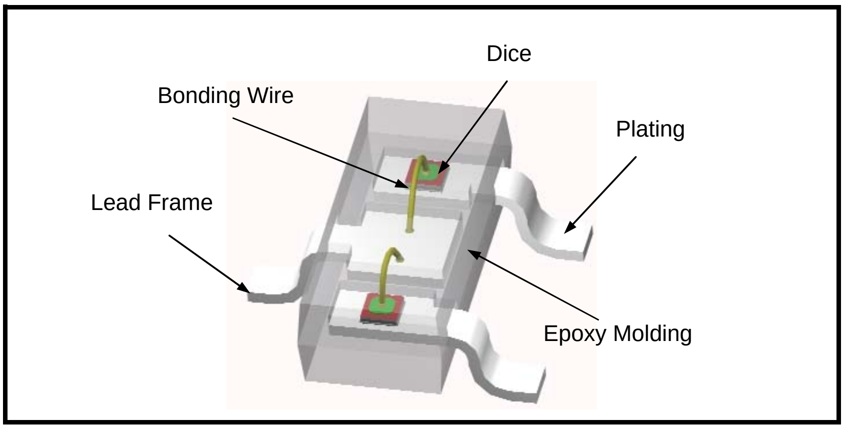


Weight: 2.390mg / pc

2007-11-15

Make up of material		Chemical Composition	CAS No.	Content Spec. (%)	Content (%)	Substance Weight (mg)
Plating (0.0736mg)		Sn	7440-31-5	99.95 min.	99.97	0.07357792
		Others	——	0.05 max.	0.03	0.00002208
Epoxy Molding (1.3715mg)		Crystalline Silica (Quartz)	14808-60-7	70 - 90	78.2	1.07251300
		Cristobalite	14464-46-1	0 - 1	0.5	0.00685750
		Bisphenol-A Epoxy Resin	1675-54-3	3 - 20	10	0.13715000
		Phenolic Resin Water-Soluble	9003-35-4	2 - 15	9.5	0.13029250
		Antimony Trioxide	1309-64-4	0.1 - 3	1.5	0.02057250
		Carbon Black	1333-86-4	0.1 - 0.5	0.3	0.00411450
Bonding Wire (0.0045mg)		Au	7440-57-5	99.99 min.	99.998	0.00449991
		Others	——	0.01 max.	0.002	0.00000009
Lead Frame (0.8924mg)		Alloy (Ni & Fe)	12645-50-0	98.071	98.071	0.87518560
		Cu	7440-50-8	0.381	0.381	0.00340004
		Ag	7440-22-4	1.548	1.548	0.01381435
Dice (0.0480mg)	Basis	Si	7440-21-3	94.1	94.1	0.045168
	Obverse Metal	Al	7429-90-5	0.1	0.1	0.000048
	Back Metal	Au	7440-57-5	5.8	5.8	0.002784

Chemical Composition of Diode (SOT-523 HAF)



Weight: 2.394mg / pc

2011-6-27

Make up of material		Chemical Composition	CAS No.	Content Spec. (%)	Content (%)	Substance Weight (mg)
Plating (0.0736mg)		Sn	7440-31-5	99.95 min.	99.97	0.07357792
		Others	——	0.05 max.	0.03	0.00002208
Epoxy Molding (1.3711mg)		Silica Fused	60676-86-0	75-90	85	1.165435
		Epoxy Resin	29690-82-2	5-10	8.7	0.1192857
		Phenolic Resin	9003-35-4	2-8	6	0.082266
		Pigment	1333-86-4	0.1-0.5	0.3	0.0041133
Bonding Wire (0.0089mg)		Au	7440-57-5	99.99 min.	99.998	0.008899822
		Others	——	0.01 max.	0.002	0.000000178
Lead Frame (0.8924mg)		Alloy(Ni&Fe)	69012-55-1	98.071	98.071	0.875185604
		Cu	7440-50-8	0.381	0.381	0.003400044
		Ag	7440-22-4	1.548	1.548	0.013814352
Dice (0.0480mg)	Basis	Si	7440-21-3	94.1	94.1	0.045168
	Obverse Metal	Al	7429-90-5	0.1	0.1	0.000048
	Back Metal	Au	7440-57-5	5.8	5.8	0.002784

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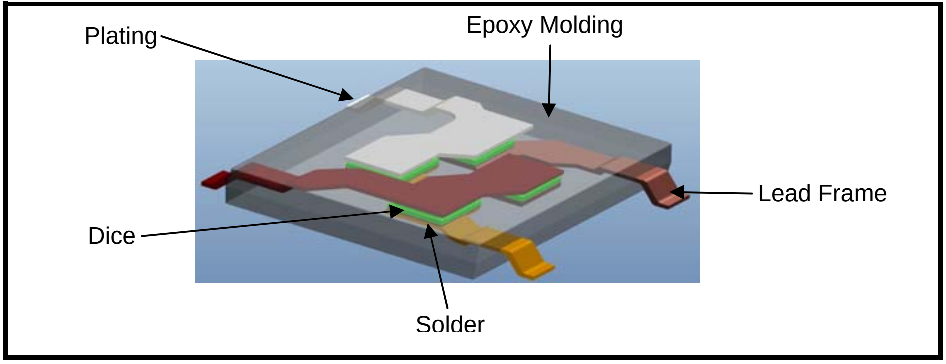
Chemical Composition of Diode (LBF)



Weight:94.2mg / pc

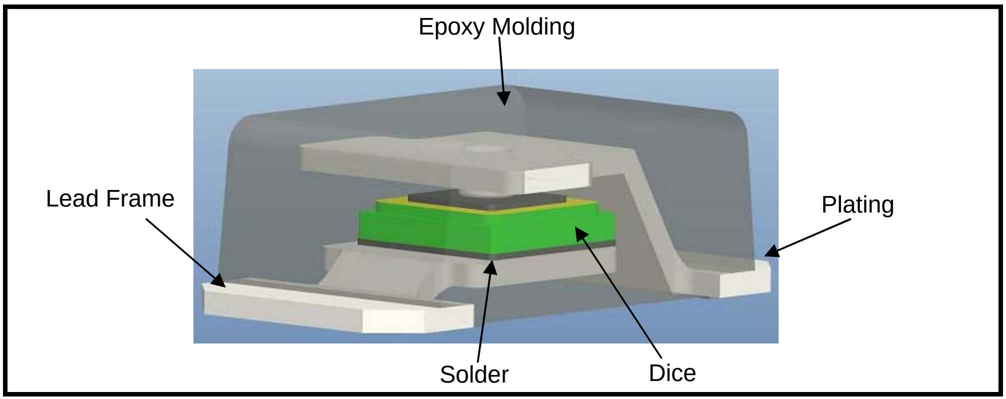
2013-3-20

Make up of material	Chemical Composition	CAS No.	Content Spec.(%)	Content (%)	Substance Weight (mg)
Plating（0.2mg）	Sn	7440-31-5	99.9 min.	99.95	0.1999
	Others	——	0.05max.	0.05	0.0001
Solder（1.6mg）	Ag	7440-22-4	2.45	2.45	0.0392
	Sn	7440-31-5	4.92	4.92	0.0787
	Pb	7439-92-1	92.35	92.35	1.4776
	Polymerized Rosin	65997-05-9	0.1	0.1	0.0016
	Octanedionic Acid	505-48-6	0.03	0.03	0.0005
	Thixotropic Agent	8001-78-3	0.15	0.15	0.0024
Epoxy Molding （46.8mg）	Epoxy Resin	61788-97-4	5-20	8.8	4.1184
	Imidazole	822-36-6	1max.	0.4	0.1872
	Silica Powder	7440-21-3	71-91	87.9	41.1372
	Briminated Epoxy Resin	68928-70-1	1.5max.	0.9	0.4212
	Antimony Trioxide	1309-64-4	1.5max.	1.0	0.468
	Carnauba Wax	8015-86-9	1max.	0.4	0.1872
	Coupling Agents	2530-83-8	1max.	0.3	0.1404
	Carbon Black	1333-86-4	1max.	0.3	0.1404
Lead Frame（42.752mg）	Cu	7440-50-8	99.8	99.8	42.666496
	Fe	7439-89-6	0.113	0.113	0.04830976
	Others	——	0.087	0.087	0.03719424
Dice （2.848mg）	Si	7440-21-3	93.48	93.48	2.6623
	PbO	1317-36-8	3.49	3.49	0.0994
	SiO_2	14808-60-7	2.01	2.01	0.0572
	Al_3O_2	1344-28-1	0.49	0.49	0.0140
	Au	7440-57-5	0.49	0.49	0.0140
	Others	——	0.04	0.04	0.0011

香港新界沙田火炭禾盛街11號中建電訊大廈26樓05~09室
Room 2605~09, 26/F., CCT Telecom Building, 11 Wo Shing Street, Fo tan, Shatin, N.T., Hong Kong
電話 Tel: (852) 2688 6033 傳真 Fax: (852) 2688 6051
電郵地址E-mail: st@semtech.com.hk 網址Website: http://www.semtech.com.hk

ISO/TS 16949 : 2009 Certificate No. M-2012-0062
ISO14001 : 2004 Certificate No. 7116
ISO 9001 : 2008 Certificate No. 0506098
BS-OHSAS 18001 : 2007 Certificate No. 7116
IECQ QC 080000 Certificate No. PRC-HSPM-1483-1

Chemical Composition of Diode (Mini-SMA HAF PL)



Weight: 18.312mg/ pc 2013-4-22

Make up of material	Chemical Composition	CAS No.	Content Spec. (%)	Content (%)	Substance Weight (mg)
Plating（0.1mg）	Sn	7440-31-5	99.9 min.	99.97	0.09997
	Others	——	0.02-0.1	0.03	0.00003
Solder（0.8mg）	Ag	7440-22-4	2-2.25	2.45	0.0196
	Sn	7440-31-5	4-4.25	4.92	0.03936
	Pb	7439-92-1	78.6-83.2	92.35	0.7388
	Polymerized Rosin	65997-05-9	4-6	0.1	0.0008
	Octanedionic Acid	505-48-6	0.2-0.9	0.03	0.00024
	Thixotropic Agent	8001-78-3	0.5max.	0.15	0.0012
Epoxy Molding （8.064mg）	Silica	14808-60-7	60-90	77.5	6.2496
	Epoxy Resin	29690-82-2	10-30	15.2	1.2257
	Phenolic Resin	9003-35-4	5-20	6.8	0.5484
	Carbon Black	1333-86-4	0-2	0.5	0.0403
Lead Frame（8.5mg）	Cu	7440-50-8	99.78	99.80	8.483
	Fe	7439-89-6	0.13	0.12	0.0102
	P	7723-14-0	0.03	0.02	0.0017
	Others	——	0.1Max	0.06	0.0051
Dice （0.848mg）	Si	7440-21-3	95.49	95.48	0.80967
	Ag	7429-90-5	4.5	4.49	0.03808
	Others	——	0.01	0.03	0.00025