Material Composition Declaration

This document is a declaration of the substances within the manufacturer listed item. Note: if the item is an assembly with lower level parts, the declaration encompasses all lower level materials for which the manufacturer has engineering responsibility.

1752-2 1.1

ICP Web Site for information on IPC-1752 Standard
http://www.ipc.org/ContentPage.aspx?pageid=Materials-Declaration

Form Type*
Distribute

Declaration Class*
Class 6 - RoHS Yes/No, Homogeneous Materials and Mfg Infomation

Supplier Information

Company Name * **Fairchild Semiconductor**	Company Unique ID 00-489-5751	Unique ID Authority Dun & Bradstreet	**Response Date*** **Oct 31, 2014 01:10 PM**
Contact Name * **David Lancaster**	Title - Contact Product Ecology	**Phone - Contact *** **801-562-7455**	**Email - Contact *** **david.lancaster@fairchildsemi.com**
Authorized Representative * **David Lancaster**	Title - Representative Product Ecology	**Phone - Representative *** **801-562-7455**	Email - Representative * david.lancaster@fairchildsemi.com

Requester Item Number	Mfr Item Number	Mfr Item Name	Effective Date	Version	Manufacturing Site	**Weight***	UOM	Unit Type
MBR2045CT	MBR2045CT	TO220-3 (92.5-5-2DA Clip).csv			Subcon	**1.858982**	g	Each

Manufacturing Process Information

Terminal Finish	Base Alloy	J-STD-020 MSL Rating	Peak Process Body Temperature	Max Time at Peak Temperature	No Reflow cycles
Sn	Other	NA	Not Applicable		Not Applicable

* Required Field

RoHS Material Composition Declaration **Declaration Type * Custom**

RoHS Directive 2011/65/EU **RoHS Definition:** Quantity limit of 0.1% by mass (1000 PPM) in homogeneous material for: Lead (Pb), Mercury, Hexavalent Chromium, Polybrominated Biphenyls (PBB), Polybrominated Diphenyl Ethers (PBDE) and quantity limit of 0.01% by mass (100 PPM) of homogeneous material for Cadmium

This document is Fairchild Semiconductor's statement regarding the directive 2011/65/EU of the European Parliament and of the council of 8 June 2011on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS Recast). The content of this document is based upon information collected from Fairchild Semiconductor supply chain, manufacturing facilities and affiliates worldwide.

The FSC part number listed above and the homogenous materials in the product are compliant with the Directive 2011/65/EU. Fairchild has implemented systems to ensure our products are compliant to environmental regulations and laws worldwide. However, not all materials in Fairchild's products may have been independently verified regarding substance content. In the event of any issues arising from information in this document, the warranty section of Fairchild's standard terms and conditions of sale shall apply, unless alternate contracts have been agreed upon in writing by both parties.

Note: The substance content disclosed herewith is approximate and is based on various methods including, engineering calculations, supplier surveys, Material Safety Data Sheets, analytical measurements. Fairchild may update this document without notification. This statement may not include information regarding the miniscule quantities of dopant and metal materials in the electrical devices contained within the finished product. CAS numbers listed for Resin substances are generic and may contain alternate substances of similar composition.

RoHS Declaration * **4 - Item(s) does not contain RoHS restricted substances per the definition above except for selected exemptions** **Supplier Acceptance * Accepted**

Exemptions: If the declared item does not contain RoHS restricted substances per the definition above except for defined RoHS exemptions, then select the corresponding response in the RoHS Declaration above and choose all applicable exemptions.

Exemption List Version EL-2011/534/EU

7(a) Lead in high melting temperature type solders (i.e. lead-based alloys containing 85 % by weight or more lead).

Declaration Signature

Supplier Signature	 DAVID LANCASTER - PRODUCT ECOLOGY MANAGER

Homogeneous Material Composition Declaration for Electronic Products

Item/SubItem Name TO220-3 (92.5-5-2DA Clip).csv

Component	Material	Weight (mg)	Jig Level	Substance Category	Substance	Weight (mg)	CAS	PPM
Lead Frame and Clip	Copper Alloy	1248.953	Supplier	-	Copper	1247.08	7440-50-8	670840
			Supplier	-	Iron	1.873438	7439-89-6	1008
Encapsulation	Thermoplastics	543.976	Supplier	-	Silicon Dioxide, quartz	451.5	14808-60-7	242875
			Supplier	-	Epoxy Resin	32.63862	29690-82-2	17557
			Supplier	-	Phenolic resin (in MC)	27.19885	9003-35-4	14631
			B	Antimony/Antimony Compounds	Antimony Trioxide	16.31931	1309-64-4	8779
			Supplier	-	TBBA-epichlorhydrin	10.87954	40039-93-8	5852
			Supplier	-	Carbon Black	5.43977	1333-86-4	2926
Plating	Other Nonferrous metals & alloys	43.15	Supplier	-	Tin	43.15	7440-31-5	23212
Chip	Silicon and inorganic compounds	6.424	Supplier	-	Silicon	6.372993	7440-21-3	3428
	Gold & its alloys	6.424	Supplier	-	Gold	0.035332	7440-57-5	19
	Arsenic/Arsenic Comounds	6.424	Supplier	-	Arsenic	0.005781	7440-38-2	3
	Nickel Alloy	6.424	B	Nickel (external applications only)	Nickel	0.009892	7440-02-0	5
Die Attach Solder Paste	Other Nonferrous metals & alloys	16.478	A	Lead/Lead Compounds	Lead	15.24215	7439-92-1	8199
			Supplier	-	Tin	0.8239	7440-31-5	443
			Supplier	-	Silver	0.41195	7440-22-4	222