



TAIWAN SEMICONDUCTOR CO.,LTD.

MATERIALS COMPOSITION DECLARATION

Item	Material Name	Tradedname	Substance Name	CAS No.	Raw Material Proportion	Proportion	ID	Exemption
1	DICE	GPP DICE	Si	7440-21-3	90.00%	0.366%	RD-01	EX:7(C)-I
			Au	7440-57-5	0.15%			
			Ni	7440-02-0	0.65%			
			Glass	65997-18-4	9.20%			
2	SOLDER WAFER	SOLDER WAFER	Pb	7439-92-1	92.50%	0.840%	RS-03	EX:7a
			Sn	7440-31-5	5%			
			Ag	7440-22-4	2.50%			
3	LEAD WIRE	Copper	Cu	7440-50-8	99.95%	75.804%	RL-02	
			Other	-	0.05%			
4	EPOXY	HF MOLDING COMPOUND	Crystalline SiO2	14808-60-7	70%	20.890%	RM-04	
			Fused SiO2	60676-86-0	10%			
			Epoxy Resin	37382-79-9	10%			
			Phenolic Resin	9003-35-4	6.5%			
			Aluminium hydroxide (Al(OH)3)	21645-51-2	1.5%			
			P compounds	99208-50-1	1.5%			
			Carbon Black	1333-86-4	0.5%			
5	PLATING LAYER	Tin	Sn	7440-31-5	100%	2.050%	RP-01	
6	MARKING INK	INK	2-Propenoic acid, polymer with 2-ethylhexyl 2-propenoate	53192-18-0	65%	0.05%	PI-01	
			Aluminum	7429-90-5	15%			
			Silicon dioxide	112945-52-5	5%			
			1-Hydroxycyclohexyl phenyl ketone	947-19-3	5%			
			Padimate	21245-01-2	10%			

Notes:

符合RoHS排外條款 It's apply to the exemption term

7(C)-I. 電子電氣元件中玻璃或陶瓷中的鉛(例如壓電電子裝置) 或玻璃或陶瓷複合材料中的鉛 .

7(C)-I-Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectronic devices, or in a glass or ceramic matrix compound.

7a. 高熔點焊料中的鉛(例如, 含鉛重量為85%或以上的鉛基合金焊料)

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

Part Tree

Part Number	Family	Process	Package	Part Weight Amount	Part Weight Unit	Part Weight per Length/Area/Volume Unit
FR151G	Fast	GPP	DO-15	0.4	g	each
FR152G	Fast	GPP	DO-15	0.4	g	each
FR153G	Fast	GPP	DO-15	0.4	g	each
FR154G	Fast	GPP	DO-15	0.4	g	each
FR155G	Fast	GPP	DO-15	0.4	g	each
FR156G	Fast	GPP	DO-15	0.4	g	each
FR157G	Fast	GPP	DO-15	0.4	g	each
FR201G	Fast	GPP	DO-15	0.4	g	each
FR202G	Fast	GPP	DO-15	0.4	g	each
FR203G	Fast	GPP	DO-15	0.4	g	each
FR204G	Fast	GPP	DO-15	0.4	g	each
FR205G	Fast	GPP	DO-15	0.4	g	each
FR206G	Fast	GPP	DO-15	0.4	g	each
FR207G	Fast	GPP	DO-15	0.4	g	each
HER151G	High Efficient	GPP	DO-15	0.4	g	each
HER152G	High Efficient	GPP	DO-15	0.4	g	each
HER153G	High Efficient	GPP	DO-15	0.4	g	each
HER154G	High Efficient	GPP	DO-15	0.4	g	each
HER155G	High Efficient	GPP	DO-15	0.4	g	each
HER156G	High Efficient	GPP	DO-15	0.4	g	each
HER157G	High Efficient	GPP	DO-15	0.4	g	each

2M51Z	Zener Diode	GPP	DO-15	0.4 g	each
2M56Z	Zener Diode	GPP	DO-15	0.4 g	each
2M62Z	Zener Diode	GPP	DO-15	0.4 g	each
2M68Z	Zener Diode	GPP	DO-15	0.4 g	each
2M75Z	Zener Diode	GPP	DO-15	0.4 g	each
2M82Z	Zener Diode	GPP	DO-15	0.4 g	each
2M91Z	Zener Diode	GPP	DO-15	0.4 g	each
2M100Z	Zener Diode	GPP	DO-15	0.4 g	each
2M110Z	Zener Diode	GPP	DO-15	0.4 g	each
2M120Z	Zener Diode	GPP	DO-15	0.4 g	each
2M130Z	Zener Diode	GPP	DO-15	0.4 g	each
2M140Z	Zener Diode	GPP	DO-15	0.4 g	each
2M150Z	Zener Diode	GPP	DO-15	0.4 g	each
2M160Z	Zener Diode	GPP	DO-15	0.4 g	each
2M170Z	Zener Diode	GPP	DO-15	0.4 g	each
2M180Z	Zener Diode	GPP	DO-15	0.4 g	each
2M190Z	Zener Diode	GPP	DO-15	0.4 g	each
2M200Z	Zener Diode	GPP	DO-15	0.4 g	each
3A60	Standard	GPP	DO-15	0.4 g	each
3A100	Standard	GPP	DO-15	0.4 g	each
UG2D	Ultra Fast	GPP	DO-15	0.33 g	each