Material Composition Specification

TO-18 2-Lead Case

Device average mass . . . . **287 mg**

Fluctuation margin . . . . **+/-10%**

Component	Material	Material (%wt)	Material (mg)	Substance	CAS No.	Substance (%wt)	Substance (mg)	Substance (ppm)
active device	doped Si	0.871%	2.5	Si	7440-21-3	0.871%	2.5	8,711
die attach	silver epoxy	0.101%	0.29	epoxy resin	Proprietary	0.077%	0.22	767
				Ag	7440-22-4	0.024%	0.07	244
bond wire	Al alloy	0.136%	0.39	Al	7429-90-5	0.132%	0.38	1,324
				Si	7440-21-3	0.003%	0.01	35
header	Kovar (Fe/Ni/Co alloy)	55.923%	160.5	Fe	7439-89-6	19.237%	55.21	192,369
				Ni	7440-02-0	12.596%	36.15	125,958
				glass	Proprietary	14.634%	42	146,341
				Co	7440-48-4	8.498%	24.39	84,983
				Mn	7439-96-5	0.236%	0.677	2,359
				P	7723-14-0	0.195%	0.56	1,951
				Si	7440-21-3	0.141%	0.406	1,415
				Ag	7440-22-4	0.251%	0.72	2,509
				C	1333-86-4	0.023%	0.067	233
				Cu	7440-50-8	0.098%	0.28	976
				S	7704-34-9	0.014%	0.04	139
can	alloy	40.07%	115	Fe	7439-89-6	39.951%	114.66	399,512
				C	1333-86-4	0.017%	0.05	174
				Mn	7439-96-5	0.080%	0.23	801
				Al	7429-90-5	0.021%	0.06	209
can plating	nickel	1.157%	3.32	Ni	7440-02-0	1.157%	3.32	11,568
plating	gold	1.742%	5.0	Au	7440-57-5	1.742%	5.0	17,422

Disclaimer
The information provided in this Material Composition data sheet is, to the best of our knowledge, correct. However, there is no guarantee to completeness or accuracy, as some information is derived from data sources outside the company.

R0 (8-March 2013)