Material Composition Specification

TO-46 Case

Device average mass . . . . 204 mg

Fluctuation margin . . . . +/-10%

Component	Material	Material		Substance	CAS No.	Substance		
		(%wt)	(mg)			(%wt)	(mg)	(ppm)
active device	doped Si	2.451%	5.0	Si	7440-21-3	2.451%	5.0	24,510
bond wire	Al alloy	0.191%	0.39	Al	7429-90-5	0.186%	0.38	1,863
				Si	7440-21-3	0.005%	0.01	49
header	Kovar (Fe/Ni/Co alloy)	41.4%	84.447	Fe	7439-89-6	15.613%	31.85	156,127
				Ni	7440-02-0	10.216%	20.84	102,157
				Glass	Proprietary	9.461%	19.3	94,608
				Co	7440-48-4	5.49%	11.2	54,902
				Mn	7439-96-5	0.152%	0.31	1,520
				P	7723-14-0	0.125%	0.256	1,255
				Si	7440-21-3	0.091%	0.185	907
				Ag	7440-22-4	0.162%	0.33	1,618
				C	1333-86-4	0.015%	0.03	147
				Cu	7440-50-8	0.063%	0.128	627
				S	7704-34-9	0.009%	0.018	88
can	metal alloy	53.58%	109.313	Fe	7439-89-6	53.431%	109	534,314
				Mn	7439-96-5	0.103%	0.21	1,029
				Al	7429-90-5	0.027%	0.055	270
				C	1333-86-4	0.024%	0.048	235
can plating (inner layer)	nickel	0.907%	1.85	Ni	7440-02-0	0.907%	1.85	9,069
can plating (outer layer)	matte tin**	1.32%	2.7	Sn	7440-31-5	1.32%	2.7	13,235
lead free termination plating*	matte tin**	0.147%	0.3	Sn	7440-31-5	0.147%	0.3	1,471

*For Lead Free termination plating, add suffix “PB FREE” to part number.
**Contact the Central Semiconductor Sales Department for tin/lead plating availability.

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.

R2 (16-July 2018)