



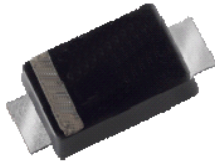
# SEMICONDUCTOR Small Signal Products

## MATERIAL CONTENT LIST

PACKAGE FAMILY: **SMF (DO-219AB)**  
 DATE: **July 24, 2020**  
 REVISION: **11**

this is reel line and SMF400

**RoHS  
COMPLIANT**



MATERIAL CONTENT					
Part	Material	CAS N°	weight mg	% of weight	ppm of total weight
Lead frame 43.0%	Cu	7440-50-8	6.20	97.5%	418944
	Fe	7439-89-6	0.15	2.4%	10318
	Zn	7440-66-6	0.008	0.1%	516
	P	7723-14-0	0.002	0.03%	129
	<b>TOTAL</b>		<b>6.36</b>		
Terminal finish 1.4%	Sn	7440-31-5	0.210	100.0%	14195
	<b>TOTAL</b>		<b>0.21</b>		
Die solder (solder paste) 0.9%	Pb *)	7439-92-1	0.13	92.52%	8449
	Sn	7440-31-5	0.007	4.96%	453
	Ag	7440-22-4	0.003	2.52%	230
	<b>TOTAL</b>		<b>0.14</b>		
Silicon chip 3.2%	Si	7440-21-3	0.47	99.6%	31635
	Silicon dioxide	14808-60-7	0.002	0.4%	135
	<b>TOTAL</b>		<b>0.47</b>		
And/or traces of Au,As,Ti,Ag,Al, Ni, Pd, Cu					
Molding compound 51.5%	Cristalline Silica	14808-60-7	5.26	69.0%	355403
	Cured polymer (epoxy + phenolic resin reacted)		1.98	26.0%	133839
	Antimony trioxide	1309-64-4	0.23	3.0%	15452
	Wax	8015-86-9	0.08	1.0%	5151
	Catalyst	603-35-0	0.08	1.0%	5151
	<b>TOTAL</b>		<b>7.62</b>		
<b>Total weight</b>			<b>14.8</b>		

Remark: Total weight range  $\pm 10\%$   
 \*) Lead in high melting temperature type solder acc. RoHS exempted  
 Reflow Soldering acc. J-STD-020  
 Material Analyses Reports available on request