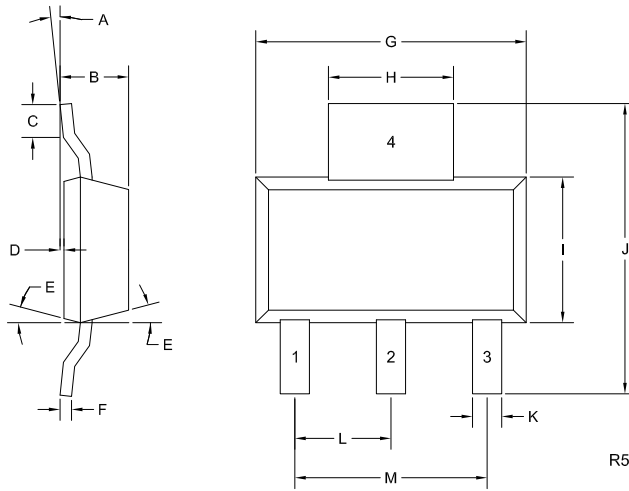


Package Details

SOT-223 Case



Mechanical Drawing



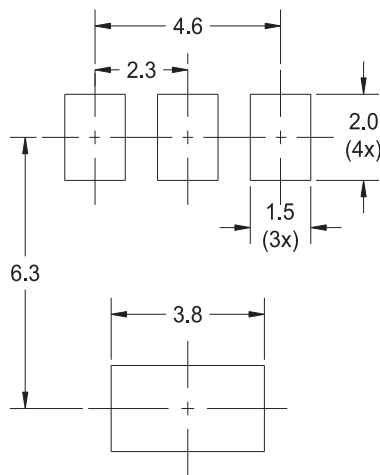
SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0°	10°	0°	10°
B	0.059	0.071	1.50	1.80
C	0.018	---	0.45	---
D	0.000	0.004	0.00	0.10
E	10°		10°	
F	0.009	0.014	0.23	0.35
G	0.248	0.270	6.30	6.85
H	0.114	0.122	2.90	3.10
I	0.130	0.146	3.30	3.70
J	0.264	0.287	6.70	7.30
K	0.024	0.033	0.60	0.85
L	0.091		2.30	
M	0.181		4.60	

SOT-223 (REV: R5)

Lead Code:
Reference individual device datasheet.

Part Marking: Full Part Number

Mounting Pad Geometry (Dimensions in mm)



R1

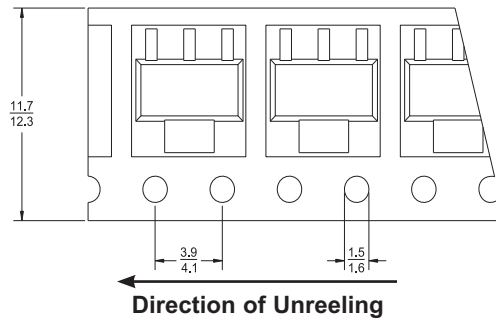
Package Details

SOT-223 Case



Tape Dimensions and Orientation (Dimensions in mm)

Tape Width: 12mm



Devices are taped in accordance with Electronic Industries Association Standard EIA-481-D

Packaging Base

7" Reel = 1,000 pcs.

Reel Labeling Information

Each reel is labeled with the following information:

Central Part Number, Customer Part Number, Purchase Order Number, Quantity, Lot Number, Date Code and Ship Date.

Reel Packing Information

Reel Size	Reels per Box (Maximum)	Parts per Box (Maximum)	Box Dimensions		Shipping Weight (Max.)	
			INCH	CM	LB	KG
7"	6	6,000	9x9x5	23x23x13	4	2
	13	13,000	9x9x9	23x23x23	7	4
	32	32,000	21x9x9	53x23x23	16	8
	82	82,000	27x9x17	69x23x43	43	20

Ordering Information

- For devices taped and reeled on 7" reels, add TR suffix to part number.
- All SMDs are available in small quantities for prototype and manual placement applications.

R6 (30-April 2019)

Material Composition Specification

SOT-223 Case



Eutectic Die Attach

Device average mass 113 mg (+/-10%)

Component	Material	Material		Substance	CAS No.	Substance		
		(%wt)	(mg)			(%wt)	(mg)	(ppm)
active device	doped Si	0.95%	1.072	Si	7440-21-3	0.95%	1.072	9,487
bond wire	gold or copper	0.05%	0.06	Au	7440-57-5	0.05%	0.06	531
				Cu	7440-50-8			
leadframe	copper w/ silver plating	40.55%	45.82	Cu	7440-50-8	40.13%	45.35	401,327
				Fe	7439-89-6	0.04%	0.05	442
				P	7723-14-0	0.01%	0.015	113
				Ag	7440-22-4	0.36%	0.402	3,558
				silica	7631-86-9	41.24%	46.6	412,389
encapsulation*	EMC	56.48%	63.82	epoxy resin	Proprietary	13.43%	15.18	134,336
				Sb ₂ O ₃	1309-64-4	1.11%	1.256	11,115
				TBBA	79-94-7	0.55%	0.627	5,549
				carbon black	1333-86-4	0.14%	0.158	1,398
				silica	60676-86-0	40.1%	45.31	401,000
	EMC GREEN	56.48%	63.82	epoxy resin	29690-82-2	5.22%	5.904	52,248
				phenol resin	9003-35-4	5.22%	5.904	52,248
				carbon black	1333-86-4	0.28%	0.32	2,832
				metal hydroxide	1309-42-8	5.65%	6.38	56,460
				Sn	7440-31-5	1.58%	1.785	15,796
plating**	tin/lead process	1.97%	2.23	Pb	7439-92-1	0.39%	0.445	3,938
	matte tin	1.97%	2.23	Sn	7440-31-5	1.97%	2.23	19,735

Solder Die Attach

Device average mass 115 mg (+/-10%)

Component	Material	Material		Substance	CAS No.	Substance		
		(%wt)	(mg)			(%wt)	(mg)	(ppm)
active device	doped Si	1.25%	1.432	Si	7440-21-3	1.25%	1.432	12,452
bond wire	gold or copper	0.11%	0.125	Au	7440-57-5	0.11%	0.125	1,087
				Cu	7440-50-8			
leadframe	copper w/ silver plating	44.92%	51.66	Cu	7440-50-8	44.56%	51.24	445,565
				Fe	7439-89-6	0.05%	0.057	496
				P	7723-14-0	0.02%	0.02	174
				Ag	7440-22-4	0.3%	0.345	3,000
				Pb	7439-92-1	0.32%	0.37	3,217
die attach	high temperature solder paste	0.34%	0.39	Sn	7440-31-5	0.02%	0.02	174
				Ag	7440-22-4	0.001%	0.001	9
				silica	7631-86-9	37.56%	43.196	375,624
encapsulation*	EMC	51.44%	59.16	epoxy resin	Proprietary	12.23%	14.07	122,350
				Sb ₂ O ₃	1309-64-4	1.01%	1.165	10,131
				TBBA	79-94-7	0.51%	0.582	5,061
				carbon black	1333-86-4	0.13%	0.147	1,278
				silica	60676-86-0	36.53%	42.004	365,259
	EMC GREEN	51.44%	59.16	epoxy resin	29690-82-2	4.76%	5.473	47,592
				phenol resin	9003-35-4	4.76%	5.473	47,592
				carbon black	1333-86-4	0.26%	0.297	2,583
				metal hydroxide	1309-42-8	5.14%	5.913	51,418
				Sn	7440-31-5	1.55%	1.785	15,522
plating**	tin/lead process	1.94%	2.23	Pb	7439-92-1	0.39%	0.445	3,870
	matte tin	1.94%	2.23	Sn	7440-31-5	1.94%	2.23	19,392

*EMC GREEN molding compound is Halogen-Free.

**For Lead Free plating, add suffix "PB FREE" to part number.

For Tin/Lead plating, add suffix "TIN/LEAD" to part number.

No suffix designation allows for the supply of either lead-free or tin/lead plated product depending on 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.

R10 (16-July 2018)