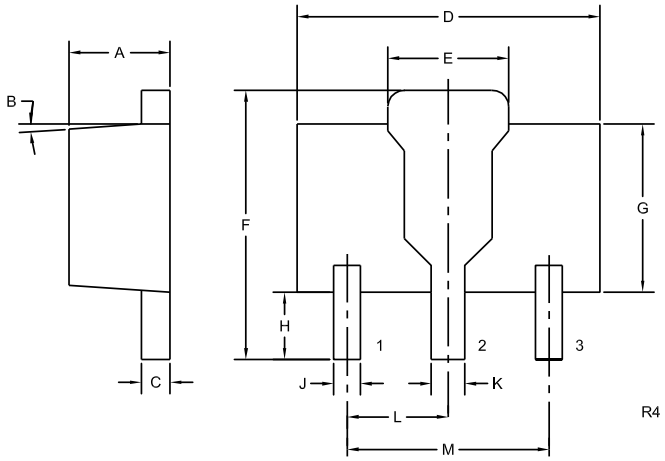
Package Details
SOT-89 Case

Mechanical Drawing



BOTTOM VIEW

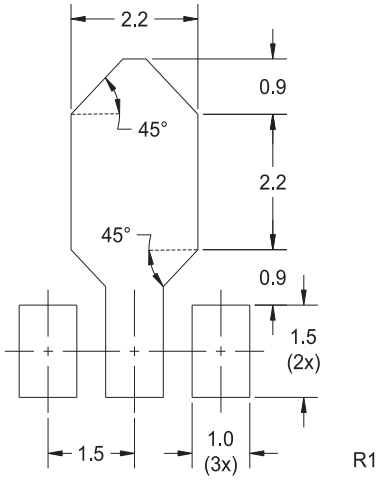
DIMENSIONS				
	INCHES		MILLIMETERS	
SYMBOL	MIN	MAX	MIN	MAX
A	0.055	0.067	1.40	1.70
B	4°		4°	
C	0.014	0.018	0.35	0.46
D	0.173	0.185	4.40	4.70
E	0.064	0.074	1.62	1.87
F	0.146	0.177	3.70	4.50
G	0.090	0.106	2.29	2.70
H	0.028	0.051	0.70	1.30
J	0.014	0.019	0.36	0.48
K	0.017	0.023	0.44	0.58
L	0.059		1.50	
M	0.118		3.00	

SOT-89 (REV: R4)

Lead Code:
Reference individual device datasheet.

Part Marking: Full Part Number

Mounting Pad Geometry (Dimensions in mm)

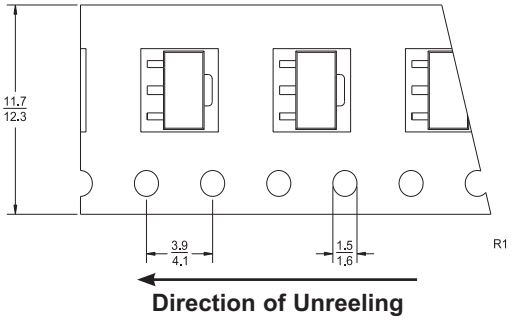


R4 (4-March 2010)

Package Details
SOT-89 Case

Tape Dimensions and Orientation (Dimensions in mm)

Tape Width: 12mm



Devices are taped in accordance with Electronic Industries Association Standard EIA-481-1-A

Packaging Base

7” Reel = 1,000 pcs.
13” Reel = 4,000 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

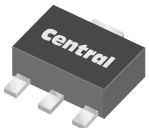
Reel Size	Reels per Box (Maximum)	Parts per Box (Maximum)	Box Dimensions		Shipping Weight (Max.)	
			INCH	CM	LB	KG
7”	6	6,000	9x9x5	23x23x13	3	2
	13	13,000	9x9x9	23x23x23	6	3
	32	32,000	21x9x9	53x23x23	13	6
	82	82,000	27x9x17	69x23x43	35	16
13”	6	24,000	15x4x15	38x10x38	10	5
	14	56,000	15x15x9	38x38x23	22	10
	26	104,000	15x15x18	38x38x46	40	19

Ordering Information

- For devices taped and reeled on 7” reels, add TR suffix to part number.
- For devices taped and reeled on 13” reels, add TR13 suffix to part number.
- All SMDs are available in small quantities for prototype and manual placement applications.

Material Composition Specification

SOT-89 Case



Eutectic Die Attach

Device average mass . . . . . 51.391 mg (+/-10%)

Component	Material	Material (%wt)	Material (mg)	Substance	CAS No.	Substance (%wt)	Substance (mg)	Substance (ppm)
active device	doped Si	0.43%	0.222	Si	7440-21-3	0.43%	0.222	4,320
bond wire	gold or copper	0.06%	0.032	Au	7440-57-5	0.06%	0.032	623
				Cu	7440-50-8			
leadframe	Cu alloy w/ silver plating	49.47%	25.42	Cu	7440-50-8	49.27%	25.319	492,655
				Fe	7439-89-6	0.05%	0.025	486
				P	7723-14-0	0.02%	0.008	156
				Ag	7440-22-4	0.14%	0.07	1,362
encapsulation*	EMC	48.68%	25.02	silica	7631-86-9	36.02%	18.51	360,166
				epoxy resin	Proprietary	11.32%	5.82	113,245
				Sb_2O_3	1309-64-4	0.98%	0.502	9,768
				TBBA	79-94-7	0.24%	0.125	2,432
				carbon black	1333-86-4	0.12%	0.063	1,226
	EMC GREEN	48.68%	25.02	silica	60676-86-0	32.53%	16.72	325,336
				epoxy resin	29690-82-2	7.39%	3.8	73,940
				phenol resin	9003-35-4	3.72%	1.91	37,165
				carbon black	1333-86-4	0.25%	0.13	2,530
				metal hydroxide	1309-42-8	4.79%	2.46	47,866
plating**	tin/lead process	1.36%	0.697	Sn	7440-31-5	1.15%	0.592	11,519
				Pb	7439-92-1	0.2%	0.105	2,043
	matte tin	1.36%	0.697	Sn	7440-31-5	1.36%	0.697	13,562

*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.

Epoxy Die Attach

Device average mass . . . . 51.493 mg (+/-10%)

Component	Material	Material (%wt)	Material (mg)	Substance	CAS No.	Substance (%wt)	Substance (mg)	Substance (ppm)
active device	doped Si	0.43%	0.222	Si	7440-21-3	0.43%	0.222	4,311
die attach	silver epoxy	0.19%	0.100	Ag	7440-22-4	0.17%	0.090	1,748
				high boiling methacrylate	7534-94-3	0.02%	0.010	194
bond wire	gold	0.06%	0.032	Au	7440-57-5	0.06%	0.032	621
leadframe	Cu alloy w/ silver plating	49.38%	25.42	Cu	7440-50-8	49.17%	25.319	491,698
				Fe	7439-89-6	0.05%	0.025	486
				P	7723-14-0	0.02%	0.008	155
				Ag	7440-22-4	0.14%	0.070	1,359
encapsulation	EMC GREEN	48.59%	25.02	silica	60676-86-0	32.47%	16.72	324,704
				epoxy resin	37382079-9	7.38%	3.80	73,796
				phenol resin	9003-35-4	3.71%	1.910	37,092
				carbon black	1333-86-4	0.25%	0.130	2,525
				metal hydroxide	1309-42-8	4.78%	2.460	47,773
plating	matte tin	1.35%	0.697	Sn	7440-31-5	1.35%	0.697	13,536