

# Radial Leads/SkyCap®/AR Series



## AUTOMOTIVE

### GENERAL INFORMATION

AVX AR Series

Conformally Coated Radial Ledged MLC

Temperature Coefficients: C0G (NP0), X7R, X8R

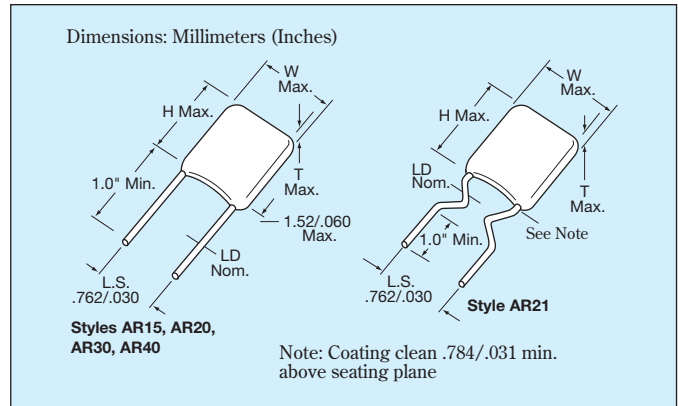
200, 100, 50 Volts

Case Material: Epoxy

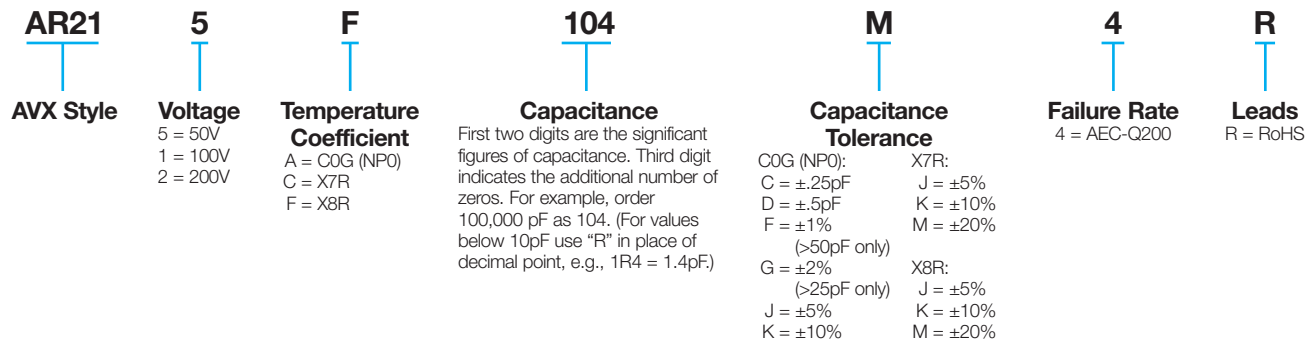
Lead Material: RoHS Compliant, 100% Tin

Qualified: to AEC-Q200, PPAP Available

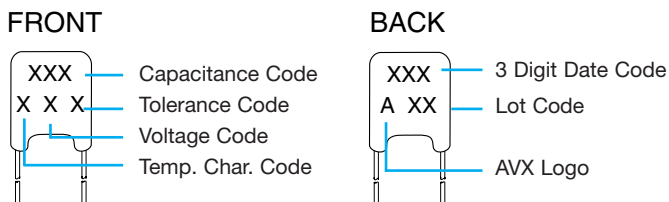
Temperature Range: up to 150°C



### HOW TO ORDER



### MARKING



### PACKAGING REQUIREMENTS

	Quantity per Bag
AR15, 20, 21, 30	1000 Pieces
AR40	500 Pieces

Note: AR15, AR20, AR21, AR30, and AR40 available on tape and reel per EIA specifications RS-468. See pages 33 and 34.

# Radial Leads/AR Series



## C0G (NP0) Dielectric

### SIZE AND CAPACITANCE SPECIFICATIONS

EIA Characteristic		Dimensions: Millimeters (Inches)								
AVX Style		AR15			AR20			AR21		
AVX "Insertable"		AR07			AR29			AR59		
Width (W)		3.81 (.150)			5.08 (.200)			5.08 (.200)		
Height (H)		3.81 (.150)			5.08 (.200)			5.08 (.200)		
Thickness (T)		2.54 (.100)			3.175 (.125)			3.175 (.125)		
Lead Spacing (L.S.)		2.54 (.100)			2.54 (.100)			5.08 (.200)		
Lead Diameter (L.D.)		.508 (.020)			.508 (.020)			.508 (.020)		
Cap. (*)	Industry Preferred Values in Blue	WVDC			WVDC			WVDC		
		200	100	50	200	100	50	200	100	50
1R0	AR-----A1R0D4R									
100	AR-----A100K4R									
150	AR-----A150K4R									
220	AR-----A220K4R									
330	AR-----A330K4R									
390	AR-----A390K4R									
470	AR-----A470K4R									
680	AR-----A680K4R									
101	AR-----A101K4R									
151	AR-----A151K4R									
221	AR-----A221K4R									
331	AR-----A331K4R									
391	AR-----A391K4R									
471	AR-----A471K4R									
681	AR-----A681K4R									
102	AR-----A102K4R									
152	AR-----A152K4R									
222	AR-----A222K4R									
392	AR-----A392K4R									
472	AR-----A472K4R									
682	AR-----A682K4R									
822	AR-----A822K4R									

(\*) First two digits are the significant figures of capacitance. Third digit indicates the additional number of zeros.

**Other series available:** AR12, AR14, AR62, AR89.



# Radial Leads/AR Series



## X7R Dielectric

### SIZE AND CAPACITANCE SPECIFICATIONS

EIA Characteristic		Dimensions: Millimeters (Inches)										
AVX Style		AR15	AR20	AR21	AR30	AR40						
AVX "Insertable"		AR07	AR29	AR59	AR65	AR75						
Width (W)		3.81 (.150)	5.08 (.200)	5.08 (.200)	7.62 (.300)	10.16 (.400)						
Height (H)		3.81 (.150)	5.08 (.200)	5.08 (.200)	7.62 (.300)	10.16 (.400)						
Thickness (T)		2.54 (.100)	3.175 (.125)	3.175 (.125)	3.81 (.150)	3.81 (.150)						
Lead Spacing (L.S.)		2.54 (.100)	2.54 (.100)	5.08 (.200)	5.08 (.200)	5.08 (.200)						
Lead Diameter (L.D.)		.508 (.020)	.508 (.020)	.508 (.020)	.508 (.020)	.508 (.020)						
Cap. (*)	Industry Preferred Values in Blue	WVDC		WVDC		WVDC		WVDC		WVDC		
		100	50	100	50	100	50	100	50	100	50	
471	AR.....C471K4R											
681	AR.....C681K4R											
102	AR.....C102K4R											
152	AR.....C152K4R											
222	AR.....C222K4R											
392	AR.....C392K4R											
472	AR.....C472K4R											
682	AR.....C682K4R											
822	AR.....C822K4R											
103	AR.....C103K4R											
153	AR.....C153K4R											
223	AR.....C223K4R											
333	AR.....C333K4R											
393	AR.....C393K4R											
473	AR.....C473K4R											
683	AR.....C683K4R											
104	AR.....C104K4R											
224	AR.....C224K4R											
334	AR.....C334K4R											
474	AR.....C474K4R											
684	AR.....C684K4R											
105	AR.....C105K4R											

(\*) First two digits are the significant figures of capacitance. Third digit indicates the additional number of zeros.

Other series available: AR12, AR14, AR62, AR89, AR32, AR38.

# Radial Leads/AR Series

## X8R Dielectric



### SIZE AND CAPACITANCE SPECIFICATIONS

EIA Characteristic		Dimensions: Millimeters (Inches)			
AVX Style		AR20		AR21	
AVX "Insertable"		AR29		AR59	
Width (W)		5.08 (.200)		5.08 (.200)	
Height (H)		5.08 (.200)		5.08 (.200)	
Thickness (T)		3.175 (.125)		3.175 (.125)	
Lead Spacing (L.S.)		2.54 (.100)		5.08 (.200)	
Lead Diameter (L.D.)		.508 (.020)		.508 (.020)	
Cap. (*)	Industry Preferred Values in Blue	WVDC		WVDC	
		200	100	50	200
102	AR.....F102K4R				
103	AR.....F103K4R				
104	AR.....F104K4R				
334	AR.....F334K4R				

(\*) First two digits are the significant figures of capacitance. Third digit indicates the additional number of zeros.

Other series available: AR14, AR62, AR89.



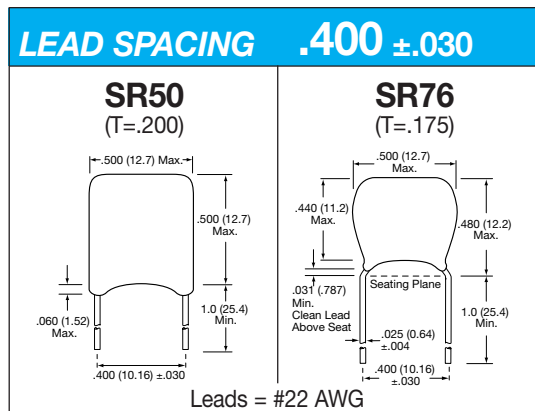
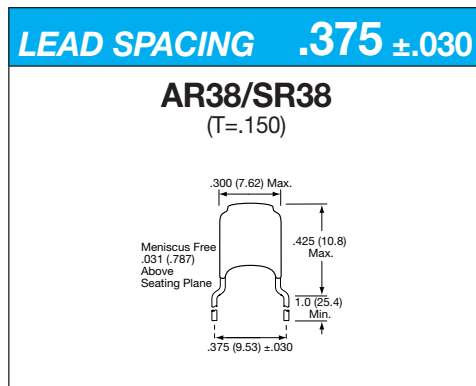
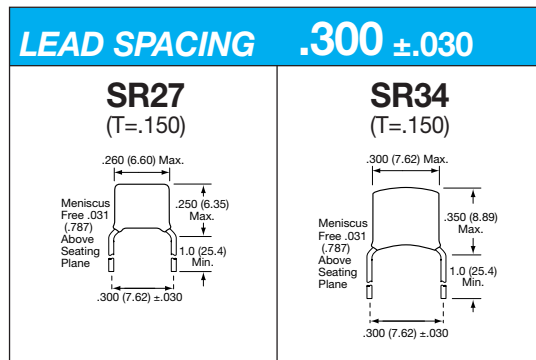
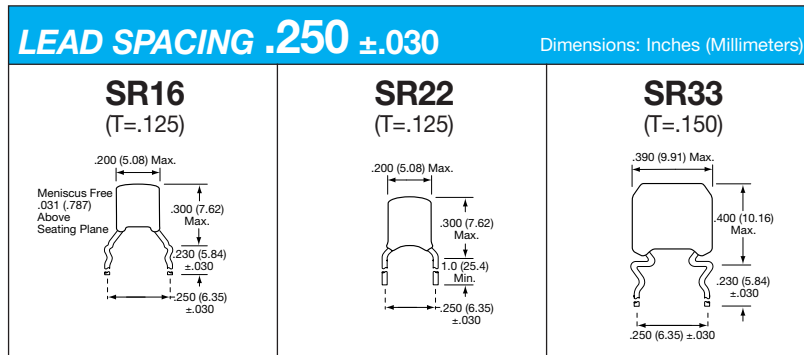
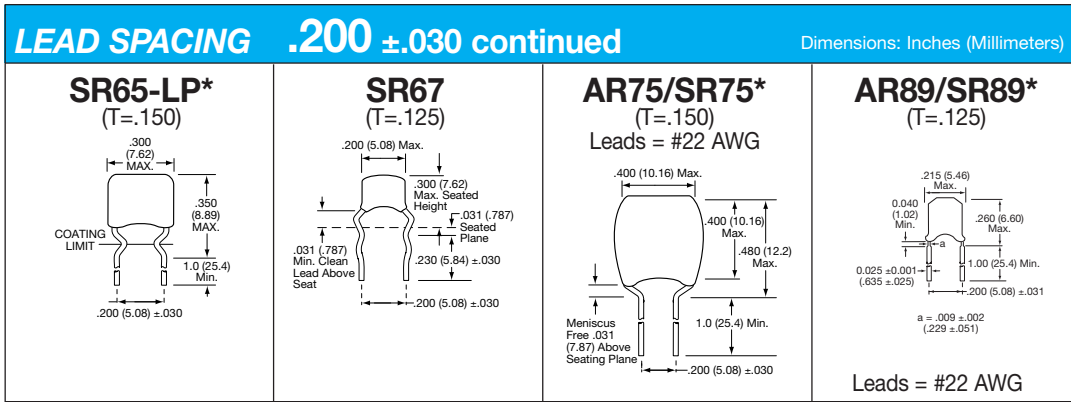
## Configurations by Lead Spacing

LEAD SPACING <b>.100 ±.030</b>				Dimensions: Inches (Millimeters)
<b>AR07/SR07*</b> (T=.100) 	<b>AR14/SR14</b> (T=.100) 	<b>AR15/SR15*</b> (T=.100) 	<b>AR20/SR20*</b> (T=.125) 	
<b>AR29/SR29*</b> (T=.125) 	<b>AR62/SR62*</b> (T=.125) <p>Leads = #22 AWG</p>	<b>SR62-LP*</b> (T=.100) <p>Leads = #22 AWG</p>		

LEAD SPACING <b>.200 ±.030</b>					Dimensions: Inches (Millimeters)
<b>AR12/SR12*</b> (T=.100) 	<b>SR13*</b> (T=.125) 	<b>AR21/SR21*</b> (T=.125) 	<b>SR21-85*</b> (T=.125) 	<b>SR28*</b> (T=.125) 	
<b>AR30/SR30*</b> (T=.150) 	<b>SR30-LP*</b> (T=.150) 	<b>AR32/SR32*</b> (T=.150) 	<b>AR40/SR40*</b> (T=.150) 	<b>AR59/SR59*</b> (T=.125) 	
<b>SR61</b> (T=.150) 	<b>SR63*</b> (T=.150) 	<b>SR64*</b> (T=.150) <p>Leads = #22 AWG</p>	<b>SR64-LP*</b> (T=.150) <p>Leads = #22 AWG</p>	<b>AR65/SR65*</b> (T=.150) 	

\*SL style available in all SR configurations.

## Configurations by Lead Spacing



- NOTES:**
1. All leads are #24 AWG unless otherwise noted.
  2. Available in tape and reel packaging(\*).
  3. Other styles are also available, contact factory.
  4. (T = XXX) under type designation is maximum thickness in inches.

\*SL style available in all SR configurations.

# Radial Leads/Packaging

## Tape and Reel



### GENERAL INFORMATION

1. Standard reel diameter is 355 millimeters (14 inches) maximum.
2. Reeling standard (#1 or #2) should be specified when ordering.

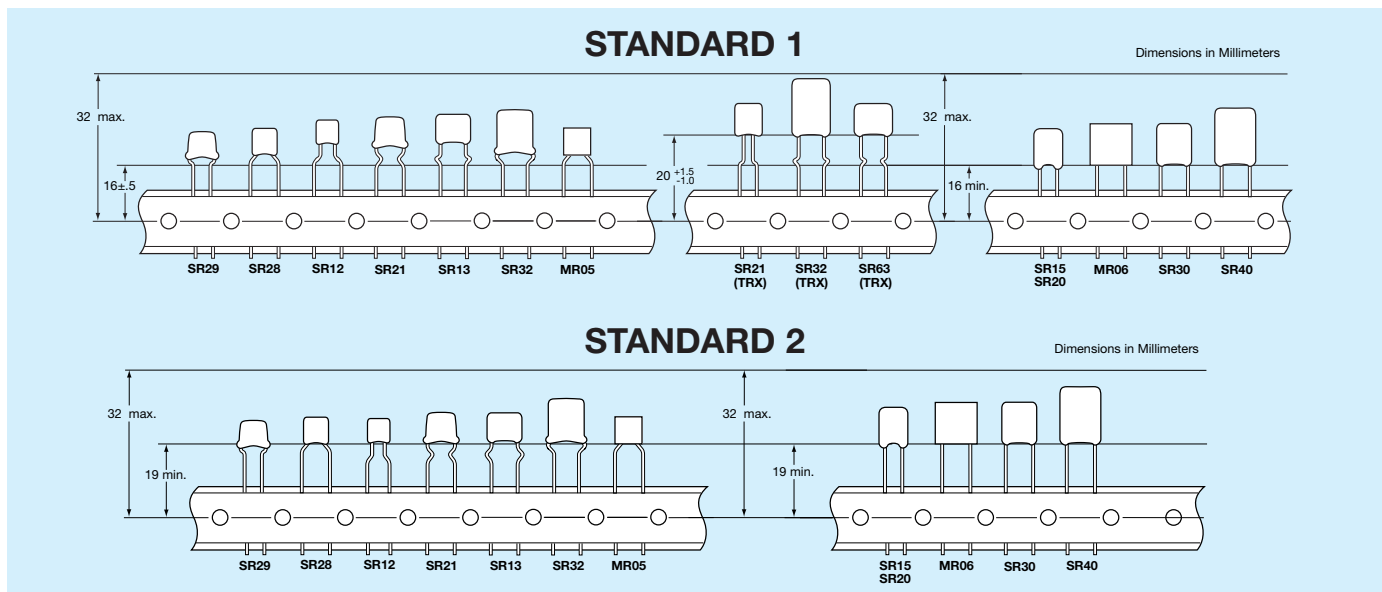
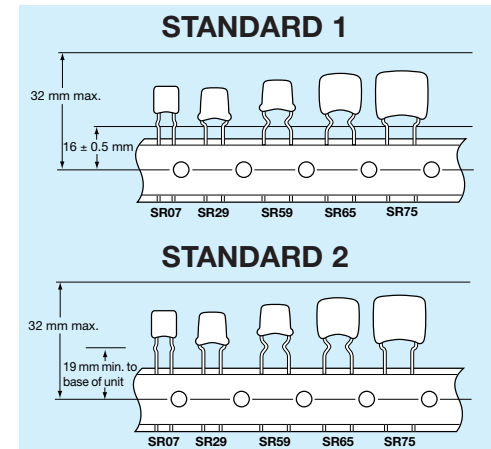
### HOW TO ORDER

To specify tape and reel packaging, add TR1, TR2 or TRX to the end of the AVX 12 digit part number.

Examples:

SR215C104KARTR1  
 SR305E105MARTR2  
 SR215C103JARTRX

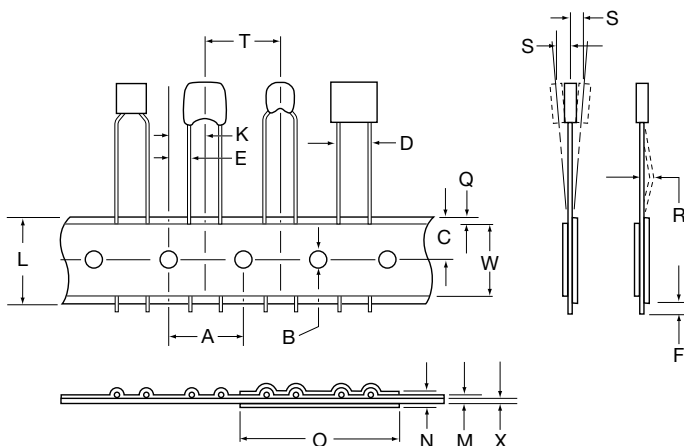
### THE INSERTABLES

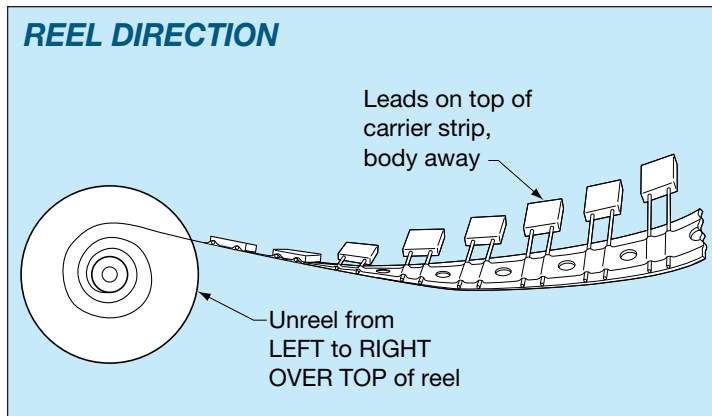


### DESCRIPTION

### DIMENSIONS (MM)

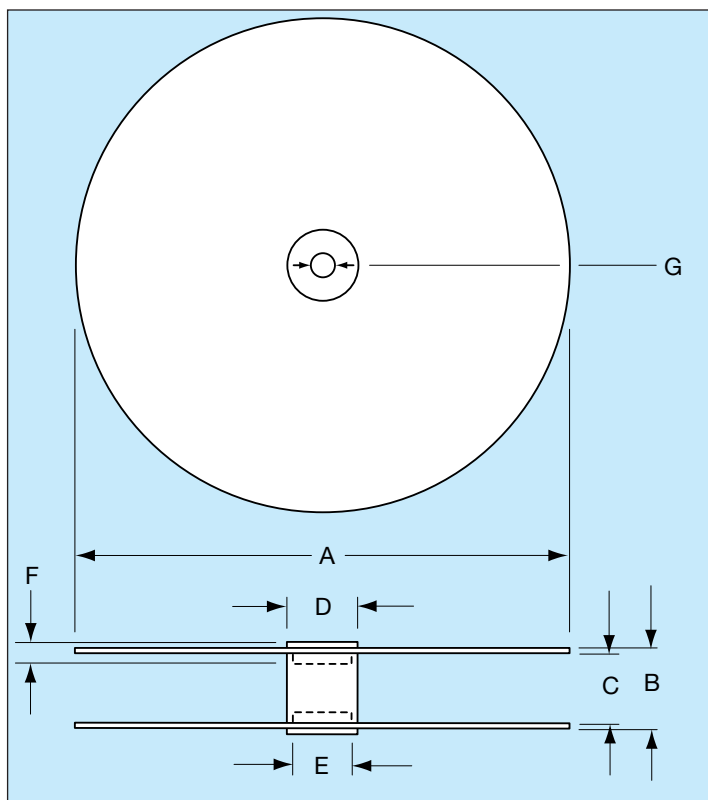
A. Feed Hole Pitch	12.70 ± .20
B. Feed Hole Diameter	3.99 ± .20
C. Feed Hole Location	9.02 ± .51
D. Component Lead Spacing	5.00 <sup>+0.79</sup> <sub>-.20</sub> or 2.54 <sup>+0.79</sup> <sub>-.20</sub>
E. Component Lead Location	3.81 ± .51 or 5.00 ± .51 for 2.54 lead spacing 2.00 maximum
F. Component Lead Protrusion (edge of carrier to cut end of lead)	2.00 maximum
K. Component Body Location	6.35 ± .41
L. Carrier Tape Width	18.01 <sup>+1.02</sup> <sub>-.51</sub>
M. Carrier Tape Assembly Thickness	.71 ± .20
N. Carrier Tape Spliced Thickness	1.42 maximum
O. Carrier Tape Spliced Length	50.80 - 88.90
Q. Adhesive Tape Border	3.00 maximum
R. Component Bent Leads (either direction)	.79 maximum
S. Component Misalignment	.99 maximum
T. Component Pitch	12.70 ± .99
W. Adhesive Tape Width	5.00 minimum
X. Carrier Tape Thickness	.51 ± .10
Y. Cumulative Pitch over 20 Pitches	254 ± 2.00





QUANTITY PER REEL SR/AR	
PART	PCS
SR15, 07, 12	3500
SR20, 21, 23, 28 13, 29, 59, 62, 89	3000
SR30, 32, 40, 63, 64 65, 75	2000
MR05, 06	2500

\*SL style available in all SR configurations.



DESCRIPTION	DIMENSIONS (MM)
A – Reel Diameter	304.80 - 355
B – Reel Outside Width	50.80 maximum
C – Reel Inside Width	38.10 - 46.02
D – Core Diameter (O.D.)	102.01 maximum
E – Hub Recess Diameter	86.36 maximum
F – Hub Recess Depth	9.50 minimum
G – Arbor Hole Diameter	25.40 - 30.48

CONVERSION TABLE									
MM	IN	MM	IN	MM	IN	MM	IN	MM	IN
.10	.004	1.52	.060	5.00	.197	9.91	.390	32.00	1.260
.20	.007	2.00	.079	5.08	.200	10.03	.395	38.10	1.500
.38	.015	2.54	.100	6.22	.245	10.16	.400	46.02	1.812
.41	.016	3.00	.118	6.35	.250	11.68	.460	50.80	2.000
.51	.020	3.18	.125	6.60	.260	12.50	.492	86.36	3.400
.71	.028	3.48	.137	6.99	.275	12.70	.500	88.90	3.500
.79	.031	3.81	.150	7.62	.300	16.00	.630	102.01	4.016
.99	.039	3.99	.157	8.89	.350	18.01	.709	254.00	10.000
1.02	.040	4.45	.175	9.02	.355	25.40	1.000	304.80	12.000
1.42	.056	4.98	.196	9.50	.374	30.48	1.200	355.00	14.000