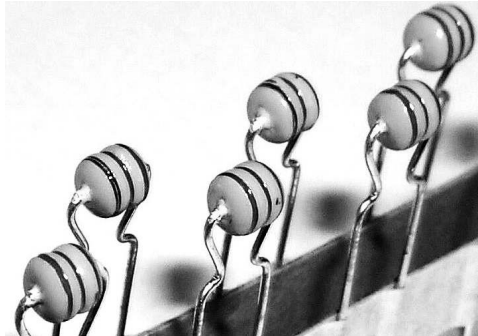


# RADIAL LEADED INDUCTORS

■ **OPERATION TEMP.** -25~+85°C (Including self-generated heat)



## ■ **FEATURES**

- The RD Series inductors are available in 3 form factors range from 35 to 45.
- For small current applications

## ■ **APPLICATIONS**

Consumer electronics such as VCR, TV and Monitor other electronic equipment.

## ■ **ORDERING CODE**

<b>AL</b>	<b>35</b>	<b>RD</b>	<b>R22</b>	<b>K</b>
①	②	③	④	⑤

① TYPE	
AL	Axial Inductor Standard type

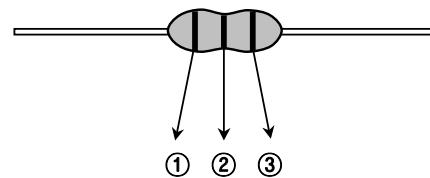
② DIMENSION [mm] max.	
35	6.0 × Φ4.0
40	7.2 × Φ5.0
45	8.0 × Φ6.0

③ TAPING CONFIGURATIONS [mm]	
RD	Radial Lead (M-forming)※

④ NOMINAL INDUCTANCE [μH]	
R22	0.22
1R5	1.5
120	12

⑤ INDUCTANCE TOLERANCE [%]	
J	±5
K	±10

## ■ **MARKING**

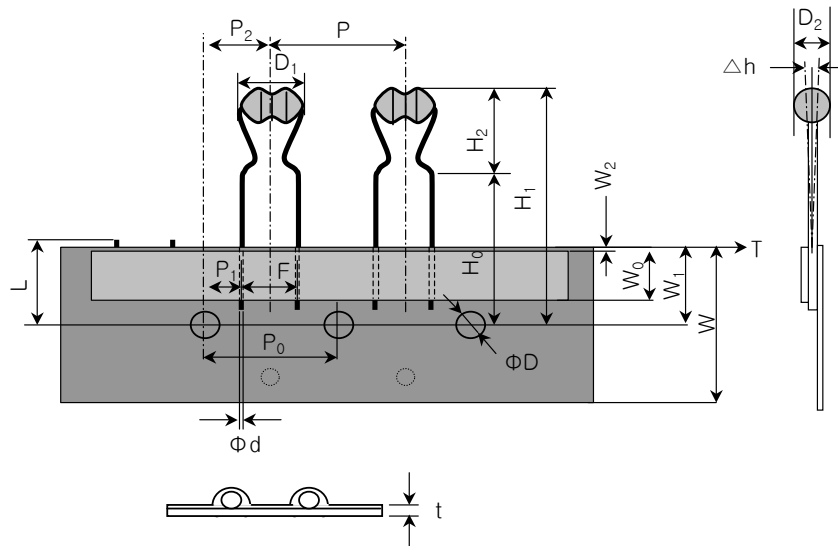


※ J GRADE → ③ Figure (Double coding)

Color	Inductance (μH)		
	1st	2st	Multi.
	①	②	③
Black	0		× 1
Brown	1		× 10
Red	2		× 100
Orange	3		× 1000
Yellow	4		-
Green	5		-
Blue	6		-
Purple	7		-
Gray	8		-
White	9		-
Gold	-		× 0.1
Silver	-		× 0.01

## ■ RADIAL TAPING DIMENSIONS & PACKING

### ● TAPING DIMENSIONS



Note1. No more than 3 consecutive pieces can be omitted

SYMBOL	DIMENSIONS		
	35	40	45
D <sub>1</sub>	7.0max	8.0max	9.5max
D <sub>2</sub>	4.0max	5.0max	6.0max
H <sub>1</sub>	26.0max	27.5max	27.5max
H <sub>2</sub>	9.0max	10.5max	10.5max
H <sub>0</sub>	6.5 ≤ H <sub>0</sub> - W <sub>1</sub>	6.5 ≤ H <sub>0</sub> - W <sub>1</sub>	6.5 ≤ H <sub>0</sub> - W <sub>1</sub>
P	12.7 ± 1.0	12.7 ± 1.0	12.7 ± 1.0
P <sub>0</sub>	12.7 ± 0.3	12.7 ± 0.3	12.7 ± 0.3
P <sub>1</sub>	3.85 ± 0.5	3.85 ± 0.5	3.85 ± 0.5
P <sub>2</sub>	6.35 ± 1.3	6.35 ± 1.3	6.35 ± 1.3
F	+0.8 5.0 -0.3	+0.6 5.0 -0.2	+0.6 5.0 -0.2
Δh	0.0 ± 2.0	0.0 ± 2.0	0.0 ± 2.0
W	+1.0 18 -0.5	+1.0 18 -0.5	+1.0 18 -0.5
W <sub>0</sub>	6.0 ± 0.1	6.0 ± 0.1	6.0 ± 0.1
W <sub>1</sub>	+1.0 9.0 -0.5	+1.0 9.0 -0.5	+1.0 9.0 -0.5
W <sub>2</sub>	T ≥ W <sub>2</sub>	T ≥ W <sub>2</sub>	T ≥ W <sub>2</sub>
ΦD	4.0 ± 0.3	4.0 ± 0.3	4.0 ± 0.3
Φd	0.50 ± 0.05	0.50 ± 0.05	0.50 ± 0.05
L	11.0max	11.0max	11.0max
t	0.5 ± 0.2	0.5 ± 0.2	0.5 ± 0.2

P<sub>0</sub>: Accumulated error for 20 pitches is ±1mm

W<sub>2</sub>: Bonding tape must not protrude from the base tape.

### ● PACKING

SYMBOL	PACKING		
	35	40	45
INNER BOX(Q'TY)	2,000	1,000	1,500

## AVAILABLE INDUCTANCE RANGE

TYPE	35			40			45		
	I <sub>max.</sub> (mA)	INDUCTANCE (μH)	R <sub>dc</sub> (mΩ)	I <sub>max.</sub> (mA)	INDUCTANCE (μH)	R <sub>dc</sub> (mΩ)	I <sub>max.</sub> (mA)	INDUCTANCE (μH)	R <sub>dc</sub> (mΩ)
0	1000	0.22	0.09	816	0.22	0.15			
1	790		0.17	707		0.2			
10	460		0.45	353		0.8	780	10	0.19
100	150		3.3	174		3.3	260		0.85
1,000	55	1,000	28	48	2,200	42	85		8.9
10,000							21	15,000	160

# ITEM-PART NUMBERS

## AL35TYPE

Ordering code	Inductance [ $\mu$ H]	Inductance Tolerance	Q (min.)	Self-resonant frequency [MHz] (min.)	DC Resistance [ $\Omega$ ] (max.)	Rated Current [mA] (max.)	Measuring frequency [MHz]
AL35 RD R22K	0.22	$\pm 10\%$ ( $\pm 5\%$ )	50	170	0.09	1000	25.2
AL35 RD R27K	0.27			160	0.10	980	
AL35 RD R33K	0.33			140	0.11	960	
AL35 RD R39K	0.39			130	0.12	940	
AL35 RD R47K	0.47			120	0.13	910	
AL35 RD R56K	0.56			110	0.14	880	
AL35 RD R68K	0.68			100	0.15	850	
AL35 RD R82K	0.82			90	0.16	820	
AL35 RD 1R0K	1.0			82	0.17	790	
AL35 RD 1R2K	1.2			70	0.18	760	
AL35 RD 1R5K	1.5			65	0.20	730	7.96
AL35 RD 1R8K	1.8			57	0.22	700	
AL35 RD 2R2K	2.2			47	0.24	670	
AL35 RD 2R7K	2.7			40	0.26	640	
AL35 RD 3R3K	3.3			35	0.28	610	
AL35 RD 3R9K	3.9			33	0.30	580	
AL35 RD 4R7K	4.7			31	0.33	560	
AL35 RD 5R6K	5.6			27	0.36	540	
AL35 RD 6R8K	6.8			24	0.39	520	
AL35 RD 8R2K	8.2			22	0.42	490	
AL35 RD 100K	10			21	0.45	460	2.52
AL35 RD 120K	12			18	1.2	350	
AL35 RD 150K	15			16	1.3	330	
AL35 RD 180K	18			14	1.4	300	
AL35 RD 220K	22			13	1.5	270	
AL35 RD 270K	27			12	1.6	250	
AL35 RD 330K	33			11	1.8	235	
AL35 RD 390K	39			10	2.0	220	
AL35 RD 470K	47			9.5	2.2	200	
AL35 RD 560K	56			9.0	2.4	190	
AL35 RD 680K	68			8.5	2.8	170	0.796
AL35 RD 820K	82			8.0	3.0	155	
AL35 RD 101K	100			7.5	3.3	150	
AL35 RD 121K	120			6.8	4.2	140	
AL35 RD 151K	150			6.2	5.0	130	
AL35 RD 181K	180			5.6	6.0	125	
AL35 RD 221K	220			5.0	7.5	120	
AL35 RD 271K	270			4.6	11	105	
AL35 RD 331K	330			4.2	13	95	
AL35 RD 391K	390			3.8	15	90	
AL35 RD 471K	470	3.4	17	80			
AL35 RD 561K	560	3.0	19	75			
AL35 RD 681K	680	2.6	22	68			
AL35 RD 821K	820	2.2	25	60			
AL35 RD 102K	1000	2.0	28	55			

# ITEM-PART NUMBERS

## AL40TYPE

Ordering code	Inductance [ $\mu$ H]	Inductance Tolerance	Q (min.)	Self-resonant frequency [MHz] (min.)	DC Resistance [ $\Omega$ ] (max.)	Rated Current [mA] (max.)	Measuring frequency [MHz]
AL40 RD R22K	0.22	$\pm 10\%$ ( $\pm 5\%$ )	50	150	0.15	816	25.2
AL40 RD R27K	0.27			150	0.15	816	
AL40 RD R33K	0.33			150	0.15	816	
AL40 RD R39K	0.39			130	0.15	816	
AL40 RD R47K	0.47			130	0.15	816	
AL40 RD R56K	0.56			130	0.20	707	
AL40 RD R68K	0.68			120	0.20	707	
AL40 RD R82K	0.82			120	0.20	707	
AL40 RD 1R0K	1.0			100	0.20	707	
AL40 RD 1R2K	1.2			85	0.20	707	
AL40 RD 1R5K	1.5			70	0.22	674	
AL40 RD 1R8K	1.8			60	0.22	674	
AL40 RD 2R2K	2.2			55	0.25	632	
AL40 RD 2R7K	2.7			50	0.27	608	
AL40 RD 3R3K	3.3			45	0.30	577	
AL40 RD 3R9K	3.9			40	0.32	559	
AL40 RD 4R7K	4.7			35	0.35	534	
AL40 RD 5R6K	5.6			33	0.37	519	
AL40 RD 6R8K	6.8			27	0.40	500	
AL40 RD 8R2K	8.2			25	0.45	471	
AL40 RD 100K	10			20	0.80	353	
AL40 RD 120K	12		18	0.90	333		
AL40 RD 150K	15		17	1.0	316		
AL40 RD 180K	18		15	1.2	288		
AL40 RD 220K	22		13	1.4	267		
AL40 RD 270K	27		11	1.7	242		
AL40 RD 330K	33		10.5	2.0	223		
AL40 RD 390K	39		10.0	2.4	204		
AL40 RD 470K	47		9.5	2.7	192		
AL40 RD 560K	56		9.0	2.9	185		
AL40 RD 680K	68		8.5	3.1	179		
AL40 RD 820K	82		7.5	3.3	174		
AL40 RD 101K	100		6.8	3.3	174		
AL40 RD 121K	120		6.2	3.5	169		
AL40 RD 151K	150		5.7	3.7	164		
AL40 RD 181K	180		5.3	4.0	158		
AL40 RD 221K	220		4.0	5.2	138		
AL40 RD 271K	270		3.6	5.8	131		
AL40 RD 331K	330		3.3	6.5	124		
AL40 RD 391K	390		3.0	7.5	115		
AL40 RD 471K	470		2.8	8.0	111		
AL40 RD 561K	560		2.4	12.5	89		
AL40 RD 681K	680	2.2	14.0	84			
AL40 RD 821K	820	2.0	15.5	80			
AL40 RD 102K	1000	40	1.8	18.5	73		
AL40 RD 122K	1200	30	1.7	29.0	58	0.252	
AL40 RD 152K	1500		1.5	34.0	54		
AL40 RD 182K	1800		1.4	37.0	51		
AL40 RD 222K	2200		1.2	32.0	48		

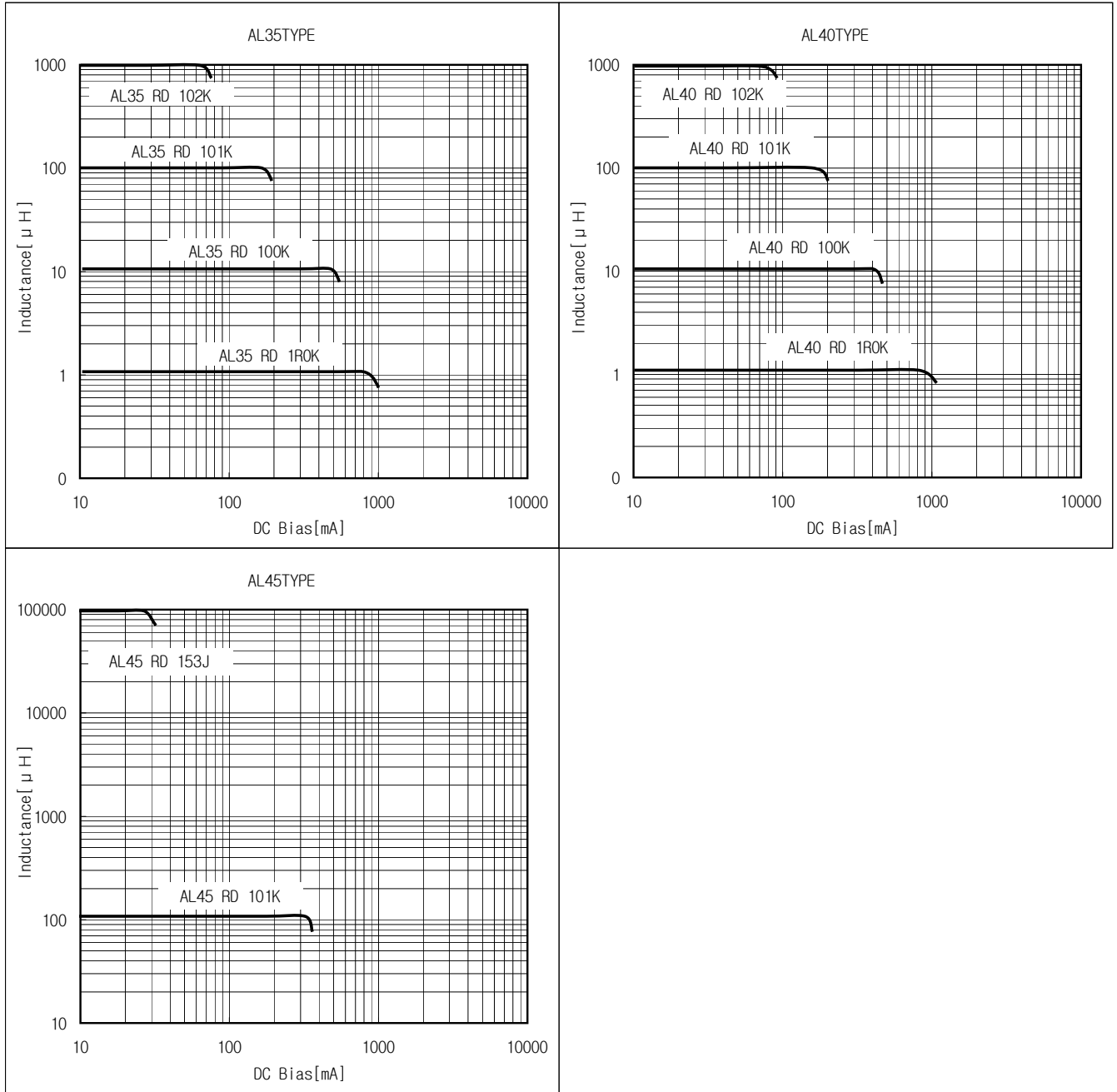
# ITEM-PART NUMBERS

## AL45TYPE

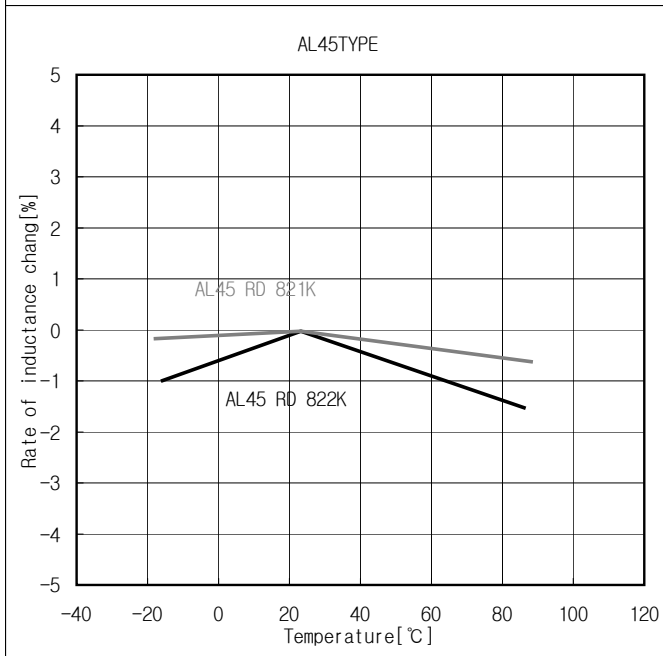
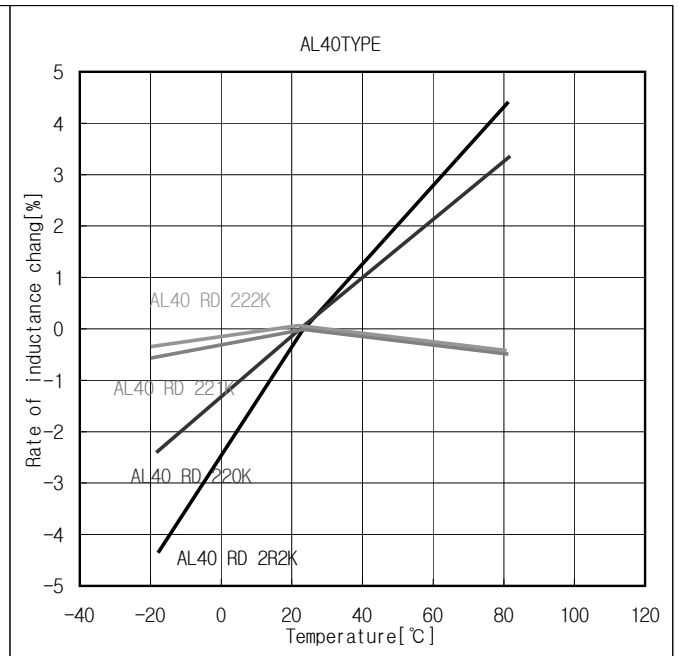
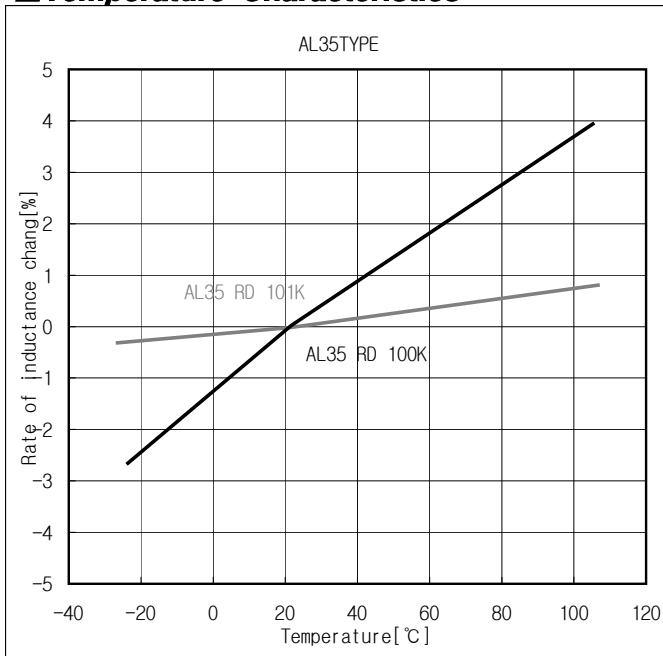
Ordering code	Inductance [ $\mu$ H]	Inductance Tolerance	Q (min.)	Self-resonant frequency [MHz] (min.)	DC Resistance [ $\Omega$ ] (max.)	Rated Current [mA] (max.)	Measuring frequency [MHz]
AL45 RD 100K	10	$\pm 10\%$ ( $\pm 5\%$ )	20	17.0	0.19	780	2.52
AL45 RD 120K	12			14.0	0.22	730	
AL45 RD 150K	15			12.0	0.24	650	
AL45 RD 180K	18			10.5	0.26	610	
AL45 RD 220K	22			10.0	0.29	540	
AL45 RD 270K	27			9.5	0.32	480	
AL45 RD 330K	33			8.5	0.34	440	
AL45 RD 390K	39			8.0	0.42	410	
AL45 RD 470K	47			7.0	0.47	375	
AL45 RD 560K	56			6.8	0.52	340	
AL45 RD 680K	68		15	6.5	0.58	320	
AL45 RD 820K	82			6.3	0.64	285	
AL45 RD 101K	100		25	6.0	0.85	260	0.796
AL45 RD 121K	120			5.4	1.00	240	
AL45 RD 151K	150			4.8	1.20	215	
AL45 RD 181K	180		30	4.0	1.50	195	
AL45 RD 221K	220			3.9	1.65	180	
AL45 RD 271K	270			3.6	2.15	160	
AL45 RD 331K	330		35	3.3	2.90	145	
AL45 RD 391K	390			3.0	3.25	135	
AL45 RD 471K	470			2.8	4.05	125	
AL45 RD 561K	560		40	2.4	4.45	115	
AL45 RD 681K	680			2.2	5.85	105	
AL45 RD 821K	820			2.0	6.60	90	
AL45 RD 102K	1000		45	1.8	8.90	85	0.252
AL45 RD 122K	1200			1.7	10.5	75	
AL45 RD 152K	1500			1.5	11.9	70	
AL45 RD 182K	1800			1.3	16.5	60	
AL45 RD 222K	2200			1.2	19.0	58	
AL45 RD 272K	2700		40	0.8	32.0	52	
AL45 RD 332K	3300			0.7	34.0	48	
AL45 RD 392K	3900			0.7	38.0	45	
AL45 RD 472K	4700			0.6	56.0	40	
AL45 RD 562K	5600			0.5	63.0	37	
AL45 RD 682K	6800			0.4	70.0	34	
AL45 RD 822K	8200			0.4	77.0	31	
AL45 RD 103K	10000		25	0.3	95.0	28	0.0796
AL45 RD 123K	12000			0.2	110.0	25	
AL45 RD 153K	15000		20	0.1	160.0	21	

# ELECTRICAL CHARACTERISTICS

## DC Bias Characteristics



## Temperature Characteristics





## ■ Q vs Frequency Characteristics

