

SURFACE MOUNT POWER INDUCTORS

PIC SERIES



Term.W is
RoHS
compliant
& 260°C
compatible



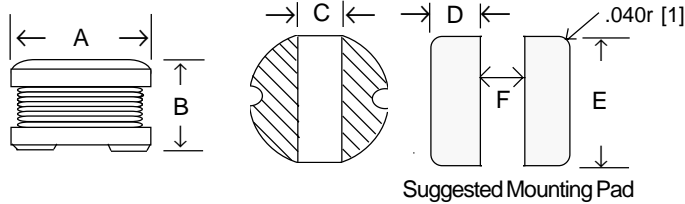
RESISTORS+CAPACITORS+COILS+DELAY LINES

- Industry's widest range and lowest cost!
- 0.68μH to 2200μH, 0.18A to 3.5A

OPTIONS

- Option ER¹: Military Screening
- Numerous design modifications are available including high frequency testing, shielded, increased current and temperature ratings, non-standard inductance values, custom marking, etc.

Series PIC inductors were developed to provide high current capability in an economical surface mount design. The cylindrical geometry enables a wide range of values with excellent high frequency performance. Construction is wirewound and utilizes a ferrite core. Units are marked with inductance value. Applications include noise filtering, DC/DC converters, telecom, power supplies, switching regulators, etc. Custom models available.



Type	A (Max)	B (Max)	C (Typ)	D	E	F
PIC1	.189 [4.8]	.138 [3.5]	.060 [1.5]	.070 [1.75]	.177 [4.5]	.060 [1.5]
PIC2	.240 [6.1]	.193 [4.9]	.070 [1.8]	.085 [2.15]	.225 [5.7]	.067 [1.7]
PIC3	.319 [8.1]	.157 [4.0]	.083 [2.1]	.120 [3.0]	.307 [7.8]	.080 [2]
PIC4	.319 [8.1]	.216 [5.5]	.083 [2.1]	.120 [3.0]	.307 [7.8]	.080 [2]
PIC5	.405 [10.3]	.177 [4.5]	.083 [2.1]	.150 [3.75]	.394 [10]	.100 [2.5]
PIC6	.409 [10.4]	.228 [5.8]	.083 [2.1]	.150 [3.75]	.394 [10]	.100 [2.5]
PIC7 ²	.433 [11]	.295 [7.5]	.083 [2.1]	.160 [4.0]	.420 [10.7]	.110 [2.8]

Induc. Value (μH) & Std. Tol.	PIC1 Current Rating/DC Max. Resis	PIC2 Current Rating/DC Max. Resis	PIC3 Current Rating/DC Max. Resis	PIC4 Current Rating/DC Max. Resis	PIC5 Current Rating/DC Max. Resis	PIC6 Current Rating/DC Max. Resis	PIC7 ² Current Rating/DC Max. Resis
.68 ±20%	2.60A/ .045Ω	Consult RCD	Consult RCD	Consult RCD	Consult RCD	Consult RCD	Consult RCD
1.0 ±20%	2.56A/ .049Ω	"	"	"	"	"	"
1.4 ±20%	2.52A/ .057Ω	"	"	"	"	"	"
1.8 ±20%	1.95A/ .064Ω	"	"	"	"	"	"
2.2 ±20%	1.75A/ .072Ω	2.20A/ .054Ω	"	"	"	"	"
2.7 ±20%	1.58A/ .079Ω	2.10A/ .057Ω	"	"	"	"	"
3.3 ±20%	1.44A/ .087Ω	2.00A/ .060Ω	"	"	"	"	"
3.9 ±20%	1.33A/ .094Ω	1.90A/ .065Ω	"	"	"	"	"
4.7 ±20%	1.15A/ .109Ω	1.80A/ .070Ω	1.78A/ .054Ω	"	"	"	"
5.6 ±20%	1.10A/ .126Ω	1.70A/ .075Ω	1.68A/ .060Ω	"	"	"	"
6.8 ±20%	1.08A/ .132Ω	1.60A/ .080Ω	1.58A/ .067Ω	2.7A/ 0.05Ω	"	"	"
8.2 ±20%	1.05A/ .147Ω	1.50A/ .090Ω	1.48A/ .074Ω	2.5A/ 0.06Ω	2.60A/ 0.04Ω	"	"
10 ±20%	1.04A/ .182Ω	1.45A/ 0.10Ω	1.44A/ 0.08Ω	2.3A/ 0.07Ω	2.38A/ 0.05Ω	2.60A/ 0.06Ω	3.50A/ 0.06Ω
12 ±20%	0.97A/ .210Ω	1.40A/ 0.12Ω	1.39A/ 0.09Ω	2.0A/ 0.08Ω	2.13A/ 0.06Ω	2.45A/ 0.07Ω	3.40A/ 0.07Ω
15 ±20%	0.85A/ .235Ω	1.30A/ 0.14Ω	1.24A/ 0.10Ω	1.8A/ 0.09Ω	1.87A/ 0.07Ω	2.27A/ 0.08Ω	3.10A/ 0.08Ω
18 ±20%	0.74A/ .338Ω	1.25A/ 0.15Ω	1.12A/ 0.11Ω	1.6A/ 0.10Ω	1.73A/ 0.08Ω	2.15A/ 0.09Ω	3.00A/ 0.09Ω
22 ±20%	0.68A/ .378Ω	1.11A/ 0.19Ω	1.07A/ 0.13Ω	1.5A/ 0.11Ω	1.60A/ 0.09Ω	1.95A/ 0.10Ω	2.60A/ 0.10Ω
27 ±20%	0.62A/ .52Ω	1.00A/ .22Ω	0.94A/ .15Ω	1.3A/ .12Ω	1.44A/ .10Ω	1.76A/ .11Ω	2.40A/ .11Ω
33 ±10%	0.56A/ .54Ω	0.88A/ .25Ω	0.85A/ .17Ω	1.2A/ .14Ω	1.26A/ .12Ω	1.50A/ .12Ω	2.30A/ .12Ω
39 ±10%	0.52A/ .59Ω	0.80A/ .32Ω	0.74A/ .22Ω	1.1A/ .16Ω	1.20A/ .15Ω	1.37A/ .14Ω	2.10A/ .14Ω
47 ±10%	0.44A/ .84Ω	0.72A/ .37Ω	0.68A/ .25Ω	1.0A/ .20Ω	1.10A/ .17Ω	1.28A/ .17Ω	1.95A/ .17Ω
56 ±10%	0.42A/ .94Ω	0.68A/ .42Ω	0.64A/ .28Ω	.94A/ .24Ω	1.00A/ .20Ω	1.17A/ .19Ω	1.85A/ .19Ω
68 ±10%	0.37A/ 1.12Ω	0.62A/ .52Ω	0.59A/ .33Ω	.85A/ .28Ω	.91A/ .22Ω	1.11A/ .22Ω	1.65A/ .22Ω
82 ±10%	0.33A/ 1.37Ω	0.58A/ .60Ω	0.54A/ .41Ω	.78A/ .37Ω	.85A/ .25Ω	1.00A/ .25Ω	1.50A/ .25Ω
100 ±10%	0.30A/ 1.66Ω	0.52A/ .70Ω	0.51A/ .48Ω	.72A/ .45Ω	.74A/ .34Ω	.97A/ .35Ω	1.40A/ .35Ω
120 ±10%	Consult RCD	0.49A/ .93Ω	0.48A/ .54Ω	.66A/ .48Ω	.69A/ .40Ω	.89A/ .40Ω	1.30A/ .40Ω
150 ±10%	"	0.41A/ 1.1Ω	0.40A/ .75Ω	.58A/ .68Ω	.61A/ .54Ω	.78A/ .47Ω	1.20A/ .47Ω
180 ±10%	"	0.38A/ 1.37Ω	0.36A/ 1.02Ω	.51A/ .77Ω	.56A/ .62Ω	.72A/ .63Ω	1.00A/ .63Ω
220 ±10%	"	0.35A/ 1.57Ω	0.31A/ 1.20Ω	.49A/ .96Ω	.53A/ .72Ω	.66A/ .73Ω	.95A/ .73Ω
270 ±10%	"	0.31A/ 1.87Ω	0.29A/ 1.31Ω	.42A/ 1.11Ω	.45A/ .95Ω	.57A/ .97Ω	.90A/ .97Ω
330 ±10%	"	0.28A/ 2.30Ω	0.28A/ 1.50Ω	.40A/ 1.26Ω	.42A/ 1.10Ω	.52A/ 1.16Ω	.80A/ 1.16Ω
390 ±10%	"	0.23A/ 3.40Ω	0.22A/ 2.47Ω	.36A/ 1.77Ω	.38A/ 1.24Ω	.48A/ 1.30Ω	.75A/ 1.30Ω
470 ±10%	"	0.20A/ 4.50Ω	0.20A/ 3.00Ω	.34A/ 1.96Ω	.35A/ 1.53Ω	.42A/ 1.48Ω	.65A/ 1.48Ω
560 ±10%	"	Consult RCD	Consult RCD	.30A/ 2.22Ω	.32A/ 1.90Ω	.33A/ 1.90Ω	.60A/ 1.90Ω
680 ±10%	"	"	"	.26A/ 2.96Ω	.25A/ 3.12Ω	.28A/ 2.25Ω	.50A/ 2.45Ω
820 ±10%	"	"	"	Consult RCD	.22A/ 4.00Ω	.24A/ 2.55Ω	.48A/ 2.55Ω
1000 ±10%	"	"	"	"	.18A/ 5.96Ω	.20A/ 3.75Ω	.46A/ 3.00Ω
1200 ±10%	"	"	"	"	Consult RCD	Consult RCD	.35A/ 3.50Ω
1500 ±10%	"	"	"	"	"	"	.32A/ 4.18Ω
2200 ±10%	"	"	"	"	"	"	.28A/ 5.46Ω

¹ Option ER Military Screening: per Mil-C-15305 (Thermal Shock -25/+85°C, DCR, Inductance, Vis./Mechanical Insp) ² Information on PIC7 is preliminary

SPECIFICATIONS

Standard Tol.: ≤27uH ±20% (10% avail), >27uH ±10% (5% avail)
 Inductance Test Frequency: 1KHz (high freq. testing avail.)
 Temperature Range: -40 to +105°C
 Temperature Rise: 20°C typical at rated current
 Derating: derate current rating by 5%/°C above 85°C
 Resistance to Soldering Heat: 260°C for 10 Sec
 Rated Current lowers inductance approximately 10%

P/N DESIGNATION:

PIC1 □ - **1R8** - **M** **T** **W**
 RCD Type _____
 Option Codes: ER, 63, etc (leave blank if std) _____
 Inductance (uH): 2 signif. digits & multiplier (R68=.68uH, 1R0=1uH, 100=100uH, 101=100uH, 102=1000uH)
 Tolerance Code: M=20%, W=15% K=10%, J=5% _____
 Packaging: T= Tape & Reel _____
 Termination: W= Pb-free (std), Q= SnPb (leave blank if either is acceptable) _____