

SURFACE MOUNT POWER INDUCTORS

PIC SERIES



Term.W is
RoHS
compliant
& 260°C
compatible



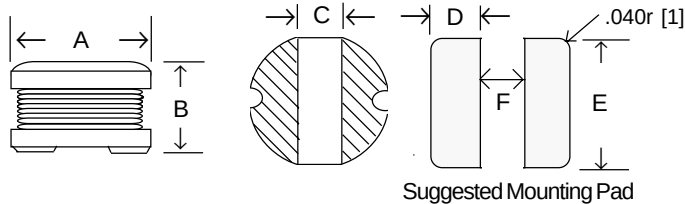
RESISTORS • CAPACITORS • COILS • DELAY LINES

- 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/.005Ω	"	"	"
8.2 ±20%	1.05A/.147Ω	1.50A/.090Ω	1.48A/.074Ω	2.5A/.006Ω	2.60A/.004Ω	"	"
10 ±20%	1.04A/.182Ω	1.45A/.010Ω	1.44A/.008Ω	2.3A/.007Ω	2.38A/.005Ω	2.60A/.006Ω	3.50A/.006Ω
12 ±20%	0.97A/.210Ω	1.40A/.012Ω	1.39A/.009Ω	2.0A/.008Ω	2.13A/.006Ω	2.45A/.007Ω	3.40A/.007Ω
15 ±20%	0.85A/.235Ω	1.30A/.014Ω	1.24A/.010Ω	1.8A/.009Ω	1.87A/.007Ω	2.27A/.008Ω	3.10A/.008Ω
18 ±20%	0.74A/.338Ω	1.25A/.015Ω	1.12A/.011Ω	1.6A/.010Ω	1.73A/.008Ω	2.15A/.009Ω	3.00A/.009Ω
22 ±20%	0.68A/.378Ω	1.11A/.019Ω	1.07A/.013Ω	1.5A/.011Ω	1.60A/.009Ω	1.95A/.010Ω	2.60A/.010Ω
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/.112Ω	0.62A/.52Ω	0.59A/.33Ω	.85A/.28Ω	.91A/.22Ω	1.11A/.22Ω	1.65A/.22Ω
82 ±10%	0.33A/.137Ω	0.58A/.60Ω	0.54A/.41Ω	.78A/.37Ω	.85A/.25Ω	1.00A/.25Ω	1.50A/.25Ω
100 ±10%	0.30A/.166Ω	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	.22A/.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=10uH, 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) _____