

IRUP Series

SMT Unshielded Power Inductors – IRUP31L, IRUP31, IRUP32, IRUP43, IRUP52, IRUP53, IRUP54, IRUP73, IRUP75, IRUP104, IRUP105, IRUP107

TRIGON
COMPONENTS



FEATURES

- Open magnetic circuit construction.
- Compact and thin.
- Put the electrode with ferrite core directly, a small surface area allow a high mounting density.
- SMD Drum Choke for power line / signal line of various size.
- Low Profile even 3x3x1.4mm and low cost.
- To help you go pass the CE/FCC standard.
- RoHS Compliant.

APPLICATION

- VTR, OA equipment, LCD television set, notebook PC, portable communication equipments, DC/DC converters, etc.
- Mobil Device / Handheld Device / Low Profile Device / Panel...

ORDERING CODE

IRUP32 K 220 I
(1) (2) (3) (4)

(1) SMT Unshielded Power Inductors
IRUP31L, IRUP31, IRUP32, IRUP43,
IRUP52, IRUP53,
IRUP54, IRUP73, IRUP75, IRUP104,
IRUP105, IRUP107

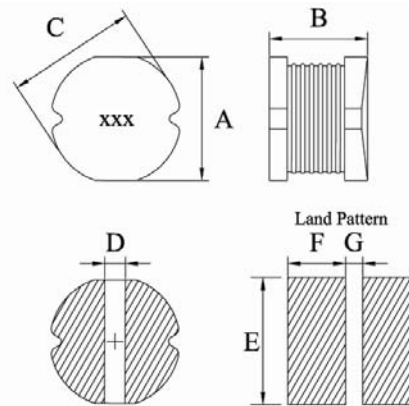
(2) Tolerance Code:
J: 5%, K: 10%, L: 15%
M: 20%, N: 30%

(3) Inductance: μH

(4) Package

※ Please refer to complete Ordering Code Document (IRUP- Ord) for more ordering options.

Configurations:



Dimension (mm)

Item	A ± 0.3	B ± 0.3	C ± 0.3	D Typ.	E	F	G
IRUP31L	3.0	1.4(max)	3.5	1.2	3.2	1.45	1.0
IRUP31	3.0	1.6	3.5	1.2	3.2	1.45	1.0
IRUP32	3.0	2.3(max)	3.5	1.0	3.5	1.6	0.8
IRUP43	4.0	3.2	4.5	1.3	4.5	2.1	0.8
IRUP52	5.2	2.5	5.8	2.0	5.5	2.25	1.5
IRUP53	5.2	3.0	5.8	2.0	5.5	2.25	1.5
IRUP54	5.2	4.5	5.8	2.0	5.5	2.25	1.5
IRUP73	7.0	3.5	7.8	2.5	7.5	3.05	1.9
IRUP75	7.0	5.0	7.8	2.5	7.5	3.05	1.9
IRUP104	9.0	4.0	10.0	2.9	9.5	3.65	2.5
IRUP105	9.0	5.4	10.0	2.9	9.5	3.65	2.5
IRUP107	9.0	7.5(max)	10.0	2.1	9.6	4.45	1.70

※Design as Customer's Requested Specifications.

Inductance Range

Item	μH
IRUP31L	1.00 ~ 120.00
IRUP31	1.00 ~ 1200.00
IRUP32	1.00 ~ 330.00
IRUP43	1.00 ~ 1000.00
IRUP52	1.20 ~ 470.00
IRUP53	1.00 ~ 1000.00
IRUP54	1.00 ~ 1000.00
IRUP73	10.00 ~ 1000.00
IRUP75	10.00 ~ 1000.00
IRUP104	10.00 ~ 1000.00
IRUP105	10.00 ~ 10000.00
IRUP107	1.00 ~ 15000.00

IRUP Series

SMT Unshielded Chip Inductors – IRUP31L

TRIGON
COMPONENTS

Electrical Characteristics for IRUP31L Series

Part Number	Inductance (μ H)	Test Freq. (KHz)	DCR (Ω) (max)	IDC (A) (max)
IRUP31LM1R0	1.00	100	0.060	1.40
IRUP31LM2R2	2.20	100	0.110	1.05
IRUP31LM3R3	3.30	100	0.150	0.80
IRUP31LM4R7	4.70	100	0.210	0.75
IRUP31LM5R6	5.60	100	0.250	0.65
IRUP31LM6R8	6.80	100	0.300	0.56
IRUP31LM8R2	8.20	100	0.380	0.50
IRUP31LK100	10.00	100	0.440	0.45
IRUP31LK120	12.00	100	0.500	0.43
IRUP31LK150	15.00	100	0.610	0.39
IRUP31LK180	18.00	100	0.730	0.32
IRUP31LK220	22.00	100	0.910	0.28
IRUP31LK270	27.00	100	1.150	0.26
IRUP31LK330	33.00	100	1.390	0.25
IRUP31LK390	39.00	100	1.880	0.23
IRUP31LK470	47.00	100	2.260	0.21
IRUP31LK560	56.00	100	2.690	0.20
IRUP31LK680	68.00	100	3.180	0.18
IRUP31LK820	82.00	100	3.670	0.16
IRUP31LK101	100.00	100	4.940	0.14
IRUP31LK121	120.00	100	5.350	0.12

※Test Freq. at 100KHz / 0.25V.

※Operating Temp. : -40°C ~ +85°C

※Inductance drop=10% typ. at IDC.

IRUP Series

SMT Unshielded Chip Inductors – IRUP31

Electrical Characteristics for IRUP31 Series

Part Number	Inductance (μ H)	Test Freq. (KHz)	DCR (Ω) (max)	IDC (A) (max)
IRUP31M1R0	1.00	100	0.048	1.60
IRUP31M1R5	1.50	100	0.100	1.55
IRUP31M2R2	2.20	100	0.078	1.47
IRUP31M3R3	3.30	100	0.126	1.34
IRUP31M3R9	3.90	100	0.140	1.24
IRUP31M4R7	4.70	100	0.158	1.22
IRUP31M5R6	5.60	100	0.186	1.09
IRUP31M6R8	6.80	100	0.213	0.96
IRUP31M8R2	8.20	100	0.238	0.84
IRUP31K100	10.00	100	0.307	0.70
IRUP31K120	12.00	100	0.372	0.65
IRUP31K150	15.00	100	0.466	0.59
IRUP31K180	18.00	100	0.515	0.54
IRUP31K220	22.00	100	0.656	0.48
IRUP31K270	27.00	100	0.774	0.43
IRUP31K330	33.00	100	1.021	0.37
IRUP31K390	39.00	100	1.122	0.32
IRUP31K470	47.00	100	1.509	0.26
IRUP31K560	56.00	100	1.675	0.24
IRUP31K680	68.00	100	1.919	0.23
IRUP31K820	82.00	100	2.644	0.21
IRUP31K101	100.00	100	2.870	0.19
IRUP31K121	120.00	100	4.084	0.17
IRUP31K151	150.00	100	4.774	0.16
IRUP31K181	180.00	100	5.699	0.14
IRUP31K221	220.00	100	9.000	0.12
IRUP31K102	1000.00	100	34.000	0.06
IRUP31K122	1200.00	100	35.000	0.057

※Test Freq. at 100KHz / 0.25V.

※Operating Temp. : -40°C ~ +85°C

※Inductance drop=10% typ. at IDC.

IRUP Series

SMT Unshielded Chip Inductors – IRUP32

TRIGON
COMPONENTS

Electrical Characteristics for IRUP32 Series

Part Number	Inductance (μ H)	Test Freq. (KHz)	DCR (Ω) (max)	IDC (A) (max)
IRUP32M1R0	1.00	100	0.045	2.20
IRUP32M1R2	1.20	100	0.050	2.10
IRUP32M1R5	1.50	100	0.055	1.70
IRUP32M1R8	1.80	100	0.070	1.65
IRUP32M2R2	2.20	100	0.085	1.60
IRUP32M2R7	2.70	100	0.100	1.40
IRUP32M3R3	3.30	100	0.120	1.05
IRUP32M3R9	3.90	100	0.125	1.00
IRUP32M4R7	4.70	100	0.135	1.00
IRUP32M5R6	5.60	100	0.145	0.95
IRUP32M6R8	6.80	100	0.200	0.95
IRUP32M8R2	8.20	100	0.250	0.92
IRUP32K100	10.00	100	0.320	0.90
IRUP32K120	12.00	100	0.350	0.85
IRUP32K150	15.00	100	0.460	0.75
IRUP32K180	18.00	100	0.520	0.70
IRUP32K220	22.00	100	0.650	0.60
IRUP32K270	27.00	100	0.750	0.55
IRUP32K330	33.00	100	0.920	0.50
IRUP32K390	39.00	100	1.000	0.48
IRUP32K470	47.00	100	1.150	0.45
IRUP32K560	56.00	100	1.500	0.30
IRUP32K680	68.00	100	2.000	0.26
IRUP32K820	82.00	100	2.150	0.23
IRUP32K101	100.00	100	2.500	0.20
IRUP32K121	120.00	100	3.400	0.18
IRUP32K151	150.00	100	4.200	0.16
IRUP32K181	180.00	100	4.500	0.15
IRUP32K221	220.00	100	5.100	0.14
IRUP32K271	270.00	100	8.500	0.10
IRUP32K331	330.00	100	9.500	0.09

※Test Freq. at 100KHz / 0.1V.

※Operating Temp. : -40°C ~ +85°C

※Inductance drop=10% typ. at IDC.

IRUP Series

SMT Unshielded Chip Inductors – IRUP43

TRIGON
COMPONENTS

Electrical Characteristics for IRUP43 Series

Part Number	Inductance (μ H)	Test Freq. (Hz)	DCR (Ω) (max)	IDC (A) (max)
IRUP43M1R0	1.00	7.96 M	0.033	3.80
IRUP43-M1R4	1.40	7.96 M	0.038	3.30
IRUP43M1R8	1.80	7.96 M	0.042	2.91
IRUP43M2R2	2.20	7.96 M	0.047	2.60
IRUP43M2R7	2.70	7.96 M	0.052	2.43
IRUP43M3R3	3.30	7.96 M	0.058	2.15
IRUP43M3R9	3.90	7.96 M	0.076	1.98
IRUP43M4R7	4.70	7.96 M	0.094	1.70
IRUP43M5R6	5.60	7.96 M	0.101	1.60
IRUP43M6R8	6.80	7.96 M	0.117	1.41
IRUP43M8R2	8.20	7.96 M	0.132	1.26
IRUP43K100	10.00	2.52 M	0.182	1.15
IRUP43K120	12.00	2.52 M	0.210	1.05
IRUP43K150	15.00	2.52 M	0.235	0.92
IRUP43K180	18.00	2.52 M	0.338	0.84
IRUP43K220	22.00	2.52 M	0.378	0.76
IRUP43K270	27.00	2.52 M	0.522	0.71
IRUP43K330	33.00	2.52 M	0.540	0.64
IRUP43K390	39.00	2.52 M	0.587	0.59
IRUP43K470	47.00	2.52 M	0.844	0.54
IRUP43K560	56.00	2.52 M	0.937	0.50
IRUP43K680	68.00	2.52 M	1.117	0.46
IRUP43K820	82.00	1 K	1.345	0.45
IRUP43K101	100.00	1 K	1.520	0.44
IRUP43K121	120.00	1 K	1.800	0.43
IRUP43K151	150.00	1 K	2.000	0.42
IRUP43K181	180.00	1 K	3.200	0.38
IRUP43K221	220.00	1 K	3.400	0.36
IRUP43K271	270.00	1 K	3.900	0.34
IRUP43K331	330.00	1 K	5.300	0.28
IRUP43K391	390.00	1 K	5.900	0.24
IRUP43K471	470.00	1 K	6.800	0.21
IRUP43K561	560.00	1 K	8.500	0.20
IRUP43K681	680.00	1 K	10.000	0.18
IRUP43K821	820.00	1 K	13.400	0.15
IRUP43K102	1000.00	1 K	15.600	0.14

※ 820 ~ 102 Test Freq. : 1KHz / 0.25V Operating Temp. : -40°C ~ +85°C Inductance drop = 10% typ. at IDC.

IRUP Series

SMT Unshielded Chip Inductors – IRUP52

TRIGON
COMPONENTS

Electrical Characteristics for IRUP52 Series

Part Number	Inductance (μ H)	Test Freq. (KHz)	DCR (Ω) (max)	IDC (A) (max)
IRUP52M1R2	1.20	100	0.050	4.20
IRUP52M1R5	1.50	100	0.060	4.00
IRUP52M1R8	1.80	100	0.065	3.70
IRUP52M2R2	2.20	100	0.070	3.50
IRUP52M2R7	2.70	100	0.080	3.20
IRUP52M3R3	3.30	100	0.100	2.70
IRUP52M3R9	3.90	100	0.120	2.40
IRUP52M4R7	4.70	100	0.140	2.00
IRUP52M5R6	5.60	100	0.150	1.80
IRUP52M6R8	6.80	100	0.160	1.50
IRUP52M8R2	8.20	100	0.170	1.40
IRUP52K100	10.00	100	0.200	1.30
IRUP52K120	12.00	100	0.230	1.10
IRUP52K150	15.00	100	0.250	1.05
IRUP52K180	18.00	100	0.300	1.00
IRUP52K220	22.00	100	0.350	0.90
IRUP52K270	27.00	100	0.400	0.85
IRUP52K330	33.00	100	0.500	0.75
IRUP52K390	39.00	100	0.550	0.70
IRUP52K470	47.00	100	0.650	0.60
IRUP52K560	56.00	100	0.750	0.55
IRUP52K680	68.00	100	0.950	0.50
IRUP52K820	82.00	100	1.200	0.45
IRUP52K101	100.00	100	1.400	0.40
IRUP52K121	120.00	100	1.750	0.35
IRUP52K151	150.00	100	2.000	0.25
IRUP52K181	180.00	100	2.600	0.22
IRUP52K221	220.00	100	3.000	0.20
IRUP52K271	270.00	100	3.700	0.18
IRUP52K331	330.00	100	4.300	0.17
IRUP52K391	390.00	100	6.000	0.16
IRUP52K471	470.00	100	6.700	0.15

※Test Freq. at 100KHz / 0.1V.

※Operating Temp. : -40°C ~ +85°C

※Inductance drop=10% typ. at IDC.

IRUP Series

SMT Unshielded Chip Inductors – IRUP53

Electrical Characteristics for IRUP53 Series

Part Number	Inductance (μ H)	Test Freq. (Hz)	DCR (Ω) (max)	IDC (A) (max)
IRUP53M1R0	1.00	7.96 M	0.030	4.50
IRUP53M1R2	1.20	7.96 M	0.030	4.20
IRUP53M1R5	1.50	7.96 M	0.030	4.10
IRUP53M1R8	1.80	7.96 M	0.030	3.70
IRUP53M2R2	2.20	7.96 M	0.030	3.50
IRUP53M2R7	2.70	7.96 M	0.040	3.20
IRUP53M3R3	3.30	7.96 M	0.050	2.80
IRUP53M3R9	3.90	7.96 M	0.060	2.60
IRUP53M4R7	4.70	7.96 M	0.070	2.50
IRUP53M5R6	5.60	7.96 M	0.080	2.40
IRUP53M6R8	6.80	7.96 M	0.090	2.20
IRUP53M8R2	8.20	7.96 M	0.100	2.00
IRUP53K100	10.00	2.52 M	0.120	1.80
IRUP53K120	12.00	2.52 M	0.130	1.75
IRUP53K150	15.00	2.52 M	0.150	1.70
IRUP53K180	18.00	2.52 M	0.180	1.60
IRUP53K220	22.00	2.52 M	0.220	1.50
IRUP53K270	27.00	2.52 M	0.240	1.40
IRUP53K330	33.00	2.52 M	0.300	1.10
IRUP53K390	39.00	2.52 M	0.400	1.00
IRUP53K470	47.00	2.52 M	0.430	0.90
IRUP53K560	56.00	2.52 M	0.500	0.85
IRUP53K680	68.00	2.52 M	0.600	0.80
IRUP53K820	82.00	2.52 M	0.800	0.65
IRUP53K101	100.00	1 K	0.900	0.60
IRUP53K121	120.00	1 K	1.000	0.58
IRUP53K151	150.00	1 K	1.300	0.43
IRUP53K181	180.00	1 K	1.500	0.41
IRUP53K221	220.00	1 K	2.000	0.38
IRUP53K271	270.00	1 K	2.500	0.35
IRUP53K331	330.00	1 K	3.200	0.28
IRUP53K391	390.00	1 K	3.500	0.26
IRUP53K471	470.00	1 K	4.200	0.20
IRUP53K561	560.00	1 K	4.500	0.19
IRUP53K681	680.00	1 K	6.000	0.18
IRUP53K821	820.00	1 K	6.500	0.15
IRUP53K102	1000.00	1 K	8.000	0.13

※101~102 Test Freq. : 1KHz / 0.25V ※Operating Temp. : -40°C ~ +85°C ※Inductance drop = 10% typ. at IDC.

IRUP Series

SMT Unshielded Chip Inductors – IRUP54

Electrical Characteristics for IRUP54 Series

Part Number	Inductance (μ H)	Test Freq. (Hz)	DCR (Ω) (max)	IDC (A) (max)
IRUP54M1R0	1.00	7.96 M	0.015	5.90
IRUP54M1R2	1.20	7.96 M	0.020	5.20
IRUP54M1R5	1.50	7.96 M	0.025	4.70
IRUP54M1R8	1.80	7.96 M	0.030	4.00
IRUP54M2R2	2.20	7.96 M	0.035	3.80
IRUP54M2R7	2.70	7.96 M	0.040	3.40
IRUP54M3R3	3.30	7.96 M	0.045	3.30
IRUP54M3R9	3.90	7.96 M	0.050	2.90
IRUP54M4R7	4.70	7.96 M	0.060	2.80
IRUP54M5R6	5.60	7.96 M	0.070	2.40
IRUP54M6R8	6.80	7.96 M	0.080	2.10
IRUP54M8R2	8.20	7.96 M	0.090	2.00
IRUP54K100	10.00	2.52 M	0.100	1.44
IRUP54K120	12.00	2.52 M	0.120	1.40
IRUP54K150	15.00	2.52 M	0.140	1.30
IRUP54K180	18.00	2.52 M	0.150	1.23
IRUP54K220	22.00	2.52 M	0.180	1.11
IRUP54K270	27.00	2.52 M	0.200	0.97
IRUP54K330	33.00	2.52 M	0.230	0.88
IRUP54K390	39.00	2.52 M	0.320	0.80
IRUP54K470	47.00	2.52 M	0.370	0.72
IRUP54K560	56.00	2.52 M	0.420	0.68
IRUP54K680	68.00	2.52 M	0.460	0.61
IRUP54K820	82.00	2.52 M	0.600	0.58
IRUP54K101	100.00	1 K	0.700	0.52
IRUP54K121	120.00	1 K	0.930	0.48
IRUP54K151	150.00	1 K	1.100	0.40
IRUP54K181	180.00	1 K	1.380	0.38
IRUP54K221	220.00	1 K	1.570	0.35
IRUP54K271	270.00	1 K	1.650	0.32
IRUP54K331	330.00	1 K	1.700	0.28
IRUP54K391	390.00	1 K	1.800	0.26
IRUP54K471	470.00	1 K	2.300	0.23
IRUP54K561	560.00	1 K	2.500	0.20
IRUP54K681	680.00	1 K	3.000	0.19
IRUP54K821	820.00	1 K	4.500	0.16
IRUP54K102	1000.00	1 K	4.800	0.14

※101~102 Test Freq.: 1KHz / 0.25V ※Operating Temp. : -40°C ~ +85°C ※Inductance drop = 10% typ. at IDC.

Inductor

IRUP Series

SMT Unshielded Chip Inductors – IRUP73

TRIGON
COMPONENTS

Electrical Characteristics for IRUP73 Series

Part Number	Inductance (μ H)	Test Freq. (Hz)	DCR (Ω) (max)	IDC (A) (max)
IRUP73K100	10.00	2.52 M	0.080	1.44
IRUP73K120	12.00	2.52 M	0.090	1.39
IRUP73K150	15.00	2.52 M	0.100	1.24
IRUP73K180	18.00	2.52 M	0.110	1.12
IRUP73K220	22.00	2.52 M	0.130	1.07
IRUP73K270	27.00	2.52 M	0.150	0.94
IRUP73K330	33.00	2.52 M	0.170	0.85
IRUP73K390	39.00	2.52 M	0.220	0.74
IRUP73K470	47.00	2.52 M	0.250	0.68
IRUP73K560	56.00	2.52 M	0.280	0.64
IRUP73K680	68.00	2.52 M	0.330	0.59
IRUP73K820	82.00	2.52 M	0.410	0.54
IRUP73K101	100.00	1 K	0.480	0.51
IRUP73K121	120.00	1 K	0.540	0.49
IRUP73K151	150.00	1 K	0.750	0.40
IRUP73K181	180.00	1 K	1.020	0.36
IRUP73K221	220.00	1 K	1.200	0.31
IRUP73K271	270.00	1 K	1.310	0.29
IRUP73K331	330.00	1 K	1.500	0.28
IRUP73K391	390.00	1 K	1.800	0.26
IRUP73K471	470.00	1 K	1.950	0.23
IRUP73K561	560.00	1 K	2.300	0.21
IRUP73K681	680.00	1 K	2.700	0.13
IRUP73K821	820.00	1 K	3.200	0.11
IRUP73K102	1000.00	1 K	3.800	0.08

※101 ~ 102 Test Freq.: 1KHz / 0.25V

※Operating Temp. : -40°C ~ +85°C

※Inductance drop = 10% typ. at IDC.

IRUP Series

SMT Unshielded Chip Inductors – IRUP75

Electrical Characteristics for IRUP75 Series

Part Number	Inductance (μ H)	Test Freq. (Hz)	DCR (Ω) (max)	IDC (A) (max)
IRUP75N1R0	1.0	100 K	0.013	5.2
IRUP75M2R2	2.2	100 K	0.014	5.0
IRUP75M2R7	2.7	100 K	0.0169	4.6
IRUP75M3R3	3.3	100 K	0.0195	4.0
IRUP75M3R9	3.9	100 K	0.0234	4.0
IRUP75M4R7	4.7	100 K	0.026	3.8
IRUP75M5R6	5.6	100 K	0.0273	3.1
IRUP75M6R8	6.8	100 K	0.0325	2.8
IRUP75M8R2	8.2	100 K	0.039	2.52
IRUP75K100	10.00	1 K	0.0416	2.31
IRUP75K120	12.00	1 K	0.0494	2.0
IRUP75K150	15.00	1 K	0.0715	1.81
IRUP75K180	18.00	1 K	0.0845	1.59
IRUP75K220	22.00	1 K	0.091	1.50
IRUP75K270	27.00	1 K	0.1066	1.28
IRUP75K330	33.00	1 K	0.1196	1.20
IRUP75K390	39.00	1 K	0.1495	1.08
IRUP75K470	47.00	1 K	0.1755	1.05
IRUP75K560	56.00	1 K	0.208	0.93
IRUP75K680	68.00	1 K	0.234	0.83
IRUP75K820	82.00	1 K	0.273	0.78
IRUP75K101	100.00	1 K	0.325	0.73
IRUP75K121	120.00	1 K	0.390	0.65
IRUP75K151	150.00	1 K	0.520	0.58
IRUP75K181	180.00	1 K	0.598	0.51
IRUP75K221	220.00	1 K	0.793	0.48
IRUP75K271	270.00	1 K	0.884	0.40
IRUP75K331	330.00	1 K	1.13	0.39
IRUP75K391	390.00	1 K	1.30	0.35
IRUP75K471	470.00	1 K	1.68	0.33
IRUP75K561	560.00	1 K	1.90	0.3
IRUP75K681	680.00	1 K	2.47	0.27
IRUP75K821	820	1 K	2.86	0.25
IRUP75K102	1000.00	1 K	3.900	0.20
IRUP75K122	1200.00	1 K	5.000	0.17

※101 ~ 102 Test Freq.: 1KHz / 0.25V

※Operating Temp. : -40°C ~ +85°C

※Inductance drop = 10% typ. at IDC.

Inductor

IRUP Series

SMT Unshielded Chip Inductors – IRUP104

TRIGON
COMPONENTS

Electrical Characteristics for IRUP75 Series

Part Number	Inductance (μ H)	Test Freq. (Hz)	DCR (Ω) (max)	IDC (A) (max)
IRUP75K152	1500.00	1 K	5.520	0.16
IRUP75K182	1800.00	1 K	6.050	0.15
IRUP75K202	2000.00	1 K	7.280	0.14
IRUP75K252	2500.00	1 K	9.680	0.11
IRUP75K302	3000.00	1 K	13.200	0.10
IRUP75K532	5300.00	1 K	24.000	0.08

※101 ~ 102 Test Freq.: 1KHz / 0.25V

※Operating Temp. : -40°C ~ +85°C

※Inductance drop = 10% typ. at IDC.

IRUP Series

SMT Unshielded Chip Inductors – IRUP104

Electrical Characteristics for IRUP104 Series

Part Number	Inductance (μ H)	Test Freq. (Hz)	DCR (Ω) (max)	IDC (A) (max)
IRUP104K100	10.00	2.52 M	0.053	2.38
IRUP104K120	12.00	2.52 M	0.061	2.13
IRUP104K150	15.00	2.52 M	0.070	1.87
IRUP104K180	18.00	2.52 M	0.081	1.73
IRUP104K220	22.00	2.52 M	0.088	1.60
IRUP104K270	27.00	2.52 M	0.100	1.44
IRUP104K330	33.00	2.52 M	0.120	1.26
IRUP104K390	39.00	2.52 M	0.151	1.20
IRUP104K470	47.00	2.52 M	0.170	1.10
IRUP104K560	56.00	2.52 M	0.199	1.01
IRUP104K680	68.00	2.52 M	0.223	0.91
IRUP104K820	82.00	2.52 M	0.252	0.85
IRUP104K101	100.00	1 K	0.344	0.74
IRUP104K121	120.00	1 K	0.396	0.69
IRUP104K151	150.00	1 K	0.544	0.61
IRUP104K181	180.00	1 K	0.621	0.56
IRUP104K221	220.00	1 K	0.721	0.53
IRUP104K271	270.00	1 K	0.949	0.45
IRUP104K331	330.00	1 K	1.100	0.42
IRUP104K391	390.00	1 K	1.245	0.38
IRUP104K471	470.00	1 K	1.526	0.35
IRUP104K561	560.00	1 K	1.904	0.32
IRUP104K681	680.00	1 K	2.200	0.31
IRUP104K821	820.00	1 K	2.700	0.30
IRUP104K102	1000.00	1 K	3.500	0.29

※101 ~ 102 Test Freq.: 1KHz / 0.25V

※Operating Temp. : -40°C ~ +85°C

※Inductance drop = 10% typ. at IDC.

IRUP Series

SMT Unshielded Chip Inductors – IRUP105

Electrical Characteristics for IRUP105 Series

Part Number	Inductance (μ H)	Test Freq. (Hz)	DCR (Ω) (max)	IDC (A) (max)
IRUP105K100	10.00	2.52 M	0.060	2.60
IRUP105K120	12.00	2.52 M	0.070	2.45
IRUP105K150	15.00	2.52 M	0.080	2.27
IRUP105K180	18.00	2.52 M	0.090	2.15
IRUP105K220	22.00	2.52 M	0.100	1.95
IRUP105K270	27.00	2.52 M	0.110	1.76
IRUP105K330	33.00	2.52 M	0.120	1.50
IRUP105K390	39.00	2.52 M	0.140	1.37
IRUP105K470	47.00	2.52 M	0.170	1.28
IRUP105K560	56.00	2.52 M	0.190	1.17
IRUP105K680	68.00	2.52 M	0.220	1.11
IRUP105K820	82.00	2.52 M	0.250	1.00
IRUP105K101	100.00	1 K	0.350	0.97
IRUP105K121	120.00	1 K	0.400	0.89
IRUP105K151	150.00	1 K	0.470	0.78
IRUP105K181	180.00	1 K	0.630	0.72
IRUP105K221	220.00	1 K	0.730	0.66
IRUP105K271	270.00	1 K	0.970	0.57
IRUP105K331	330.00	1 K	1.150	0.52
IRUP105K391	390.00	1 K	1.300	0.48
IRUP105K471	470.00	1 K	1.480	0.42
IRUP105K561	560.00	1 K	1.900	0.33
IRUP105K681	680.00	1 K	2.250	0.28
IRUP105K821	820.00	1 K	2.550	0.24
IRUP105K102	1000.00	1 K	3.000	0.20
IRUP105K103	10000.00	1 K	31.000	0.15

※101 ~ 102 Test Freq.: 1KHz / 0.25V

※Operating Temp. : -40°C ~ +85°C

※Inductance drop = 10% typ. at IDC.

IRUP Series

SMT Unshielded Chip Inductors – IRUP107

Electrical Characteristics for IRUP107 Series

Part Number	Inductance (μ H)	Test Freq. (KHz)	DCR (Ω) (max)	IDC (A) (max)
IRUP107M1R0	1.00	100	0.008	9.50
IRUP107M1R8	1.80	100	0.011	8.60
IRUP107M2R2	2.20	100	0.012	8.00
IRUP107M3R3	3.30	100	0.016	6.80
IRUP107M3R9	3.90	100	0.017	6.35
IRUP107M4R7	4.70	100	0.019	5.45
IRUP107M5R6	5.60	100	0.024	4.30
IRUP107M6R8	6.80	100	0.035	3.52
IRUP107M8R2	8.20	100	0.045	3.51
IRUP107K100	10.00	100	0.060	3.50
IRUP107K120	12.00	100	0.070	3.40
IRUP107K150	15.00	100	0.080	3.10
IRUP107K180	18.00	100	0.090	3.00
IRUP107K220	22.00	100	0.100	2.60
IRUP107K270	27.00	100	0.110	2.40
IRUP107K330	33.00	100	0.120	2.30
IRUP107K390	39.00	100	0.140	2.10
IRUP107K470	47.00	100	0.170	1.95
IRUP107K560	56.00	100	0.190	1.85
IRUP107K680	68.00	100	0.220	1.65
IRUP107K820	82.00	100	0.250	1.50
IRUP107K101	100.00	100	0.350	1.40
IRUP107K121	120.00	100	0.400	1.30
IRUP107K151	150.00	100	0.470	1.20
IRUP107K181	180.00	100	0.630	1.00
IRUP107K221	220.00	100	0.730	0.95
IRUP107K271	270.00	100	0.970	0.90
IRUP107K331	330.00	100	1.150	0.80
IRUP107K391	390.00	100	1.300	0.75
IRUP107K471	470.00	100	1.480	0.65
IRUP107K531	530.00	100	1.700	0.62
IRUP107K561	560.00	100	1.900	0.60
IRUP107K681	680.00	100	2.250	0.50
IRUP107K821	820.00	100	2.550	0.48
IRUP107K102	1000.00	100	3.000	0.46
IRUP107K122	1200.00	100	3.500	0.35
IRUP107K153	15000.00	100	41.000	0.12

※101 ~ 102 Test Freq.: 100KHz / 0.25V ※Operating Temp. : -40°C ~ +85°C

※Inductance drop = 10% typ. at IDC.

IRUP Series

SMT Unshielded Chip Inductors

Test Equipment:

- ※ HP4284A, HP42841A-L, IDC, Q.RDC
- ※ HP8753D NETWORK ANALYZER- SRF

Standard Atmospheric Conditions:

Ambient Temp: 20+/-15°C

Relative Humidity: 60+/-20%

If there may be any doubt on the result, measurement shall be made within the following limits:

Ambient Temp: 25+/-5°C

Relative Humidity: 75+/-10%

Operating & Storage Condition:

Operating Temp: -40°C ~+85°C

Storage Temp: -40°C ~+85°C

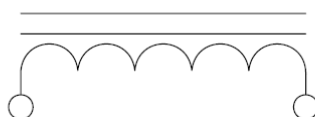
Storage Life Time: 12 Month @25°C, RH 65%

Attention & Caution:

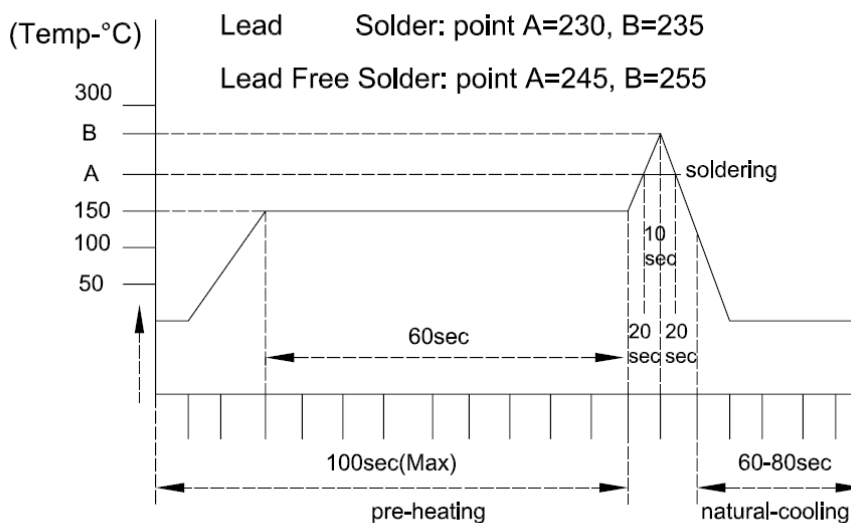
Please avoid following matters:

- ※ Splashing water or salt water
- ※ Toxic Gas (Hydrogen sulfide, Sulfurous acid, Chlorine, Ammonia)
- ※ Vibrations or shocks which exceed the specified condition
- ※ Dew Condenses
- ※ Please be careful for the stress to this product by board flexure or something after the mounting.

SCHEMATIC:



Recommand Reflow Curve (Time: Second)



Notice: Iron Soldering: 3Seconds Max @260°C

IRUP Series

SMT Unshielded Chip Inductors

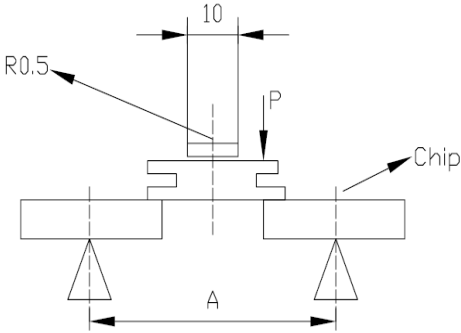
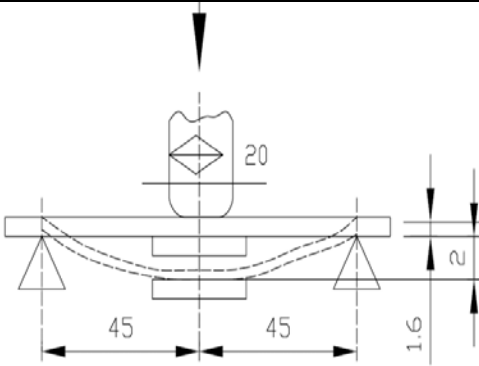
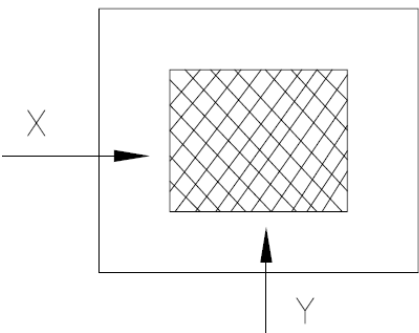
TRIGON
COMPONENTS

NO	ITEM	TEST CONDITIONS	Sample Qty/pcs	Spec	Test Day Time	Modify Day	Result																
1	Dimension	Actual Size...	10	Meet spec	2001/07/12 ~ 2001/07/12		OK																
2	Thermal Shock (Temperature Cycle)	Temperature: -20°C/+85°C kept stabilized for 30 minutes each Cycle: 100 Cycles(power off)	10	Elec. No variation Appearance No deformation	2001/07/12 ~ 2001/07/18		OK																
3	Humidity Resistance	Humidity: 90%~95% RH Temperature: 40±2°C Test Time: 120±2 Hours	10	Elec. No variation Appearance No deformation	2001/07/12 ~ 2001/07/18		OK																
4	High Temperature	Temperature: 85±2°C Humidity: 20% Test Time: 120±2 Hours	10	Elec. No variation Appearance No deformation	2001/07/12 ~ 2001/07/18		OK																
5	Low Temperature	Temperature: -20±2°C Time: 120±2 Hours	10	Elec. No variation Appearance No deformation	2001/07/12 ~ 2001/07/18		OK																
6	Temperature and Humidity Cycle	<table border="1"> <thead> <tr> <th>Step</th> <th>Temp</th> <th>Humidity</th> <th>Time</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>25±2°C</td> <td>95~100% RH</td> <td>3.0Hr</td> </tr> <tr> <td>2</td> <td>55±2°C</td> <td>95~96% RH</td> <td>9.5Hr</td> </tr> <tr> <td>3</td> <td>25±2°C</td> <td>95~100% RH</td> <td>9.5Hr</td> </tr> </tbody> </table>	Step	Temp	Humidity	Time	1	25±2°C	95~100% RH	3.0Hr	2	55±2°C	95~96% RH	9.5Hr	3	25±2°C	95~100% RH	9.5Hr	10	Elec. No variation Appearance No deformation	2001/07/12 ~ 2001/07/19		OK
Step	Temp	Humidity	Time																				
1	25±2°C	95~100% RH	3.0Hr																				
2	55±2°C	95~96% RH	9.5Hr																				
3	25±2°C	95~100% RH	9.5Hr																				
7	Vibration	Frequency: 10Hz~55Hz Amplitude: 1.5mm Direction: X,Y,Z Time: 2 Hours each	10	Elec. No variation Appearance No deformation	2001/07/12 ~ 2001/07/16		OK																
8	Dipping Verification	Temp Control Solder @ Temp 230±5°C / 3sec Dipping area must be more than 75%	10	Elec. No variation Appearance No deformation	2001/07/12 ~ 2001/07/12		OK																
9	IR Reflow Soldering	Go through real SMT IR-Reflow... Solder Temp.: 220~250°C, Time: 50sec. 250°C, Time: 10sec. Cycle: x 3	10	Elec. No variation Appearance No deformation	2001/07/12 ~ 2001/07/12		OK																
10	Soldering Heat Resistance	Preheat: 120~150°C (6sec) Solder: H63A (eutectic solder) Solder Temp.: 260±5°C Flux: Rosin Dip time: 10±1 seconds	10	Elec. No variation Appearance No deformation	2001/07/12 ~ 2001/07/12		OK																

IRUP Series

SMT Unshielded Chip Inductors

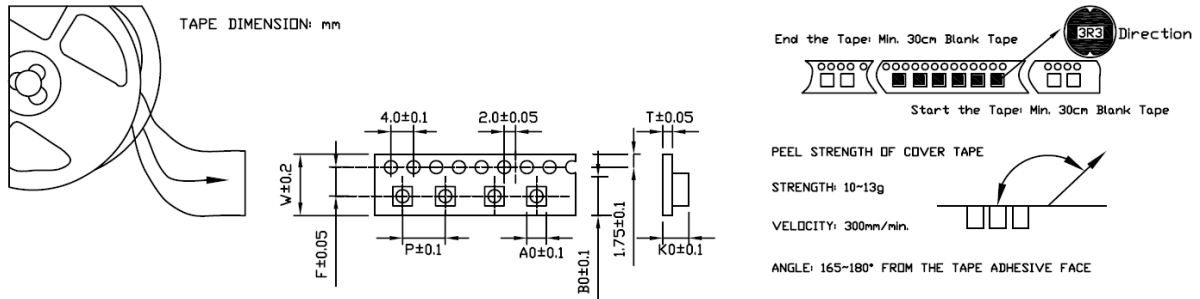
TRIGON
COMPONENTS

NO	ITEM	TEST CONDITIONS	Sample Qty/pcs	Spec	Test Day Time	Modify Day	Result
11	Bending Strength		10	Elec. No variation Appearance No deformation	2001/07/12 ~ 2001/07/12		OK
12	Flexure Strength		10	Elec. No variation Appearance No deformation	2001/07/12 ~ 2001/07/12		OK
13	Terminal Strength		10	After solder Between copper Plate and terminals of coil, Push in two directions of X,Y with 2.0kg must no crack	2001/07/12 ~ 2001/07/12		OK
14	High-Voltage	100V DC between core & winding	10	Elec. No variation Appearance No deformation	2001/07/12 ~ 2001/07/12		OK
15	ORT: on going reliability test	Elec. loading & spec test... Base on Spec for approval	10	Elec. No variation Appearance No deformation	2001/07/12 ~ 2001/07/12		OK

IRUP Series

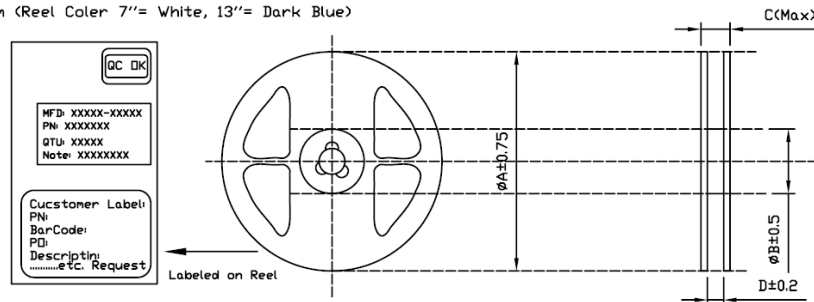
SMT Unshielded Chip Inductors

TRIGON
COMPONENTS



SIZE/mm	W	P	A ₀	B ₀	K ₀	T	F
31L	12.00	8.00	3.20	3.80	1.60	0.25	5.50
31	12.00	8.00	3.20	3.80	1.80	0.25	5.50
32	12.00	8.00	3.53	3.94	2.40	0.25	5.50
43	12.00	8.00	4.40	5.05	3.60	0.30	5.80
52	16.00	8.00	5.50	6.10	2.80	0.30	5.80
53	16.00	8.00	5.50	6.10	2.80	0.30	5.80
54	12.00	8.00	5.50	6.10	5.00	0.30	5.80
73	16.00	12.00	7.20	8.00	3.80	0.30	7.70
75	16.00	12.00	7.20	8.10	5.50	0.40	7.70
104	24.00	16.00	9.40	10.40	4.50	0.40	11.20
105	24.00	16.00	9.50	10.40	5.80	0.40	11.20
107	24.00	16.00	9.50	10.40	8.90	0.40	11.20

Reel Dimensions: mm (Reel Color 7"= White, 13"= Dark Blue)



SIZE/mm	A	B	C	D	REEL SIZE	QTY/REEL
31L	330	21±0.8	18.4	12.4	13"	2K/Reel
31	330	21±0.8	18.4	12.4	13"	2K/Reel
32	330	21±0.8	16.5	12.4	13"	2K/Reel
43	330	21±0.8	16.5	14	13"	1.5K/Reel
52	330	21±0.8	18.4	14	13"	2K/Reel
53	330	21±0.8	18.4	14	13"	2K/Reel
54	330	21±0.8	18.4	14	13"	1.5K/Reel
73	330	21±0.8	22.4	18	13"	1.5K/Reel
75	330	21±0.8	22.4	18	13"	1.0K/Reel
104	330	21±0.8	26.4	22	13"	1.0K/Reel
105	330	21±0.8	26.4	22	13"	0.75K/Reel
107	330	21±0.8	31.1	24.5	13"	0.5K/Reel

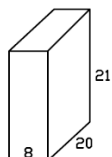
BOX Package: (Unit: cm)

31/32 - 4 Reel in

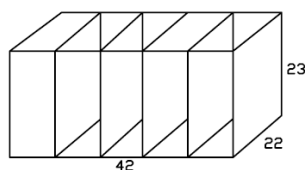
5 Inner Small Box in

104/105 - 1 Reel in
43/5X/7X - 2 Reel in

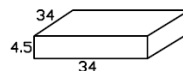
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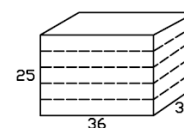
Inner Small Box



Inner Large Box



Inner Small Box



Outer Large Box