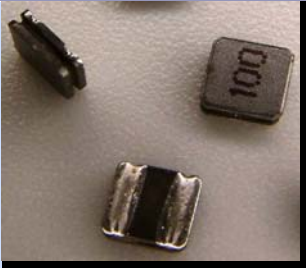


IWDFP Series

Wire Wound SMT Shielded Power Inductors (Miniature Size)

TRIGON
COMPONENTS



FEATURES

- Small size, low profile
- For new generation portable product D/D convert unit
- Low DCR to provide low loss solution
- Higher efficiency due to the lower loss
- High current saturation
- High magnetic shield construction for EMI protection.
- Flat bottom surface ensures secure reliable mounting
- RoHS Compliant

APPLICATIONS

- Cellular phones HDD, etc
- PDAs, Handheld computer
- Digital cameras
- MP3 players, GPS receivers
- DVC, DSC, PDA, LCD display

ORDERING CODE

IWDFP 2512 M R47 I
(1) (2) (3) (4) (5)

(1) SMT Shielded Power Inductor:

(2) Element size

(3) Tolerance Code:

M: 20%, N: 30%

(4) Inductance Code:

R47:0.47uH

1R0:1.0uH

1R5:1.5uH

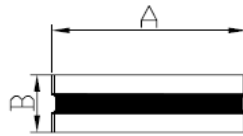
100:10uH

(5) Package:

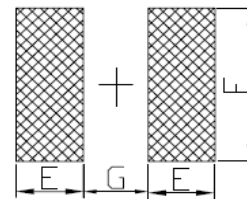
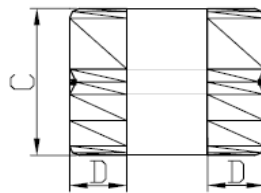
T: Tape/Reel (Standard)

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

CONFIGURATIONS:



Recommended Land Pattern



DIMENSION:

ITEM	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)
IWDFP2512	2.5±0.2	1.2Max	2.0±0.2	0.85±0.1	0.9	2.1	0.8

※Design Customer's Request Specification

Inductance Range:

ITEM	Inductance (uH)
IWDFP2512	0.47uH~10uH

Inductor

IWDFP Series

Wire Wound SMT Shielded Power Inductors (Miniature Size)

TRIGON
COMPONENTS

Part Numbers	Inductance (uH)	Tolerance (±%)	RdcTyp. (Ω)	Isat Typ. (A)	Isat MAX (A)	Irms Typ. (A)
IWDFP2512□R47T	0.47	N,M	0.029	4.5	4.2	3.90
IWDFP2512□R68T	0.68	N,M	0.036	4.2	3.85	3.40
IWDFP2512□1R0T	1.0	N,M	0.045	3.45	3.10	3.20
IWDFP2512□1R5T	1.5	N,M	0.060	2.75	2.50	2.60
IWDFP2512□2R2T	2.2	N,M	0.090	2.45	2.20	2.20
IWDFP2512□3R3T	3.3	N,M	0.120	2.00	1.80	1.80
IWDFP2512□4R7T	4.7	N,M	0.200	1.70	1.50	1.50
IWDFP2512□100T	10.0	N,M	0.400	1.15	1.05	0.95

- ※ Test Frequency: 1MHz, 0.1V
- ※ Test equipment:
- ※ L/Q: HP-4286A
- ※ SRF: HP-4291B, HP4287A
- ※ RDC: HP-4286A, CH16502
- ※ Isat: Based on Inductance decrease 30%
- ※ Irms: Base on Temperature decrease 40°C
- ※ Operating temperature range from -40°C to 125°C (Including self-temperature rise)
- ※ Storage Temp.: -40°C to +85°C

IWDFP Series

Wire Wound SMT Shielded Power Inductors (Miniature Size)

TRIGON
COMPONENTS

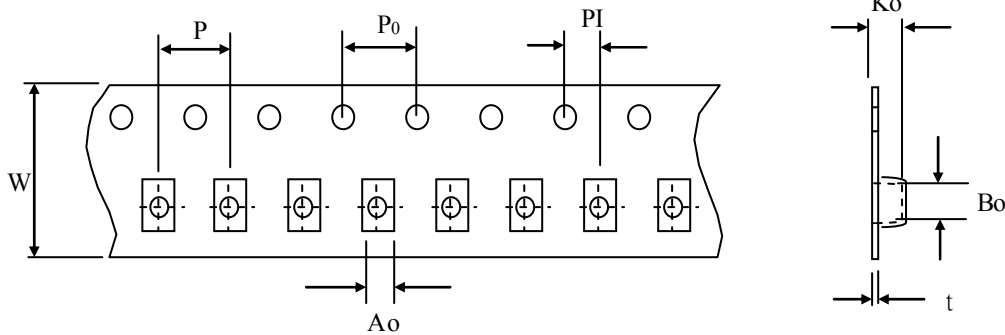
Reliability Test

Item	Condition	Requirements Specification	
1.Solderability Test	The terminal shall be at least 95% covered with fresh solder.	Dip pads in flux then dip in solder pot at : 240 ±5 for 5 seconds	
2.High Temperature Exposure	<ol style="list-style-type: none"> No mechanical and electrical damage. Inductance shall not change more than ±20% 	Test conditions : 125°C For 96Hours	
3.Temperature Cycling		<ol style="list-style-type: none"> Temperature: -40°C ± 125°C Cycles: 96 Dwell time: 30 minutes 	
4.Diased Humidity		<ol style="list-style-type: none"> Temperature : 85°C Humidity: 85%RH Time: 96 hours 	
5.Operational Life		<ol style="list-style-type: none"> Temperature : 125°C (Temp rise included) Time: 96 hours 	
6.Vibration Test		<ol style="list-style-type: none"> Frequency: 10-2000-10 Hz Test duration: 2 hours for each direction.6 hour in total Direction: X.Y.Z 	
7.Resistance To Soldering Heat Test		<ol style="list-style-type: none"> Method: DIP Temperature: 260 ±5 Time(≥ 260°C):10 Second Number of times: 3 	
8.Over Load		Applied double current of Isat to inductor for a period of 5 minutes	
9.Withstanding Voltage Test		<ol style="list-style-type: none"> During the test no breakdown. The characteristic is normal after test 	<ol style="list-style-type: none"> DV: 500V Time: 1minutes
10.Terminal Strength Test		Terminals to withstand the pull of at least want to 1.0kgf	<ol style="list-style-type: none"> Pull >1.0Kgf Dwell time: 1minutes

IWDFP Series

Wire Wound SMT Shielded Power Inductors (Miniature Size)

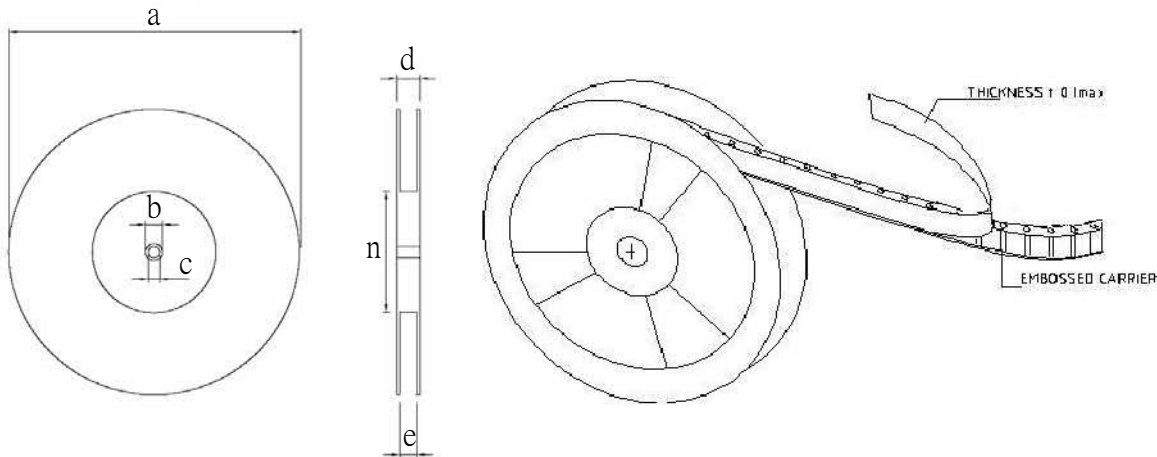
Tape Dimensions:



(Dimensions in mm)

Symbol	A ₀	B ₀	K ₀	W	P ₀	P	PI	t
Dimension	3.15±0.1	3.15±0.1	1.65 max	8±0.2	4.0±0.1	4.0±0.1	2.0±0.05	0.25±0.05

Reel dimensions



Symbol	a	b	c	d	e	n
Dimension	178.0±2.0	21.0±0.8	13.0±0.8	12.5 max	8.4±1.0	50 min

Packing Quantity

Reel		5Reel / Box		6Box / Carton	
Q'ty(Pcs)	Size m/m	Q'ty(Pcs)	Size m/m	Q'ty(Pcs)	Size m/m
2,000	180ψ	10,000	182×182×80	60,000	540×210×205

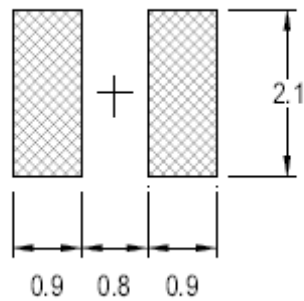
IWDFP Series

Wire Wound SMT Shielded Power Inductors (Miniature Size)

TRIGON
COMPONENTS

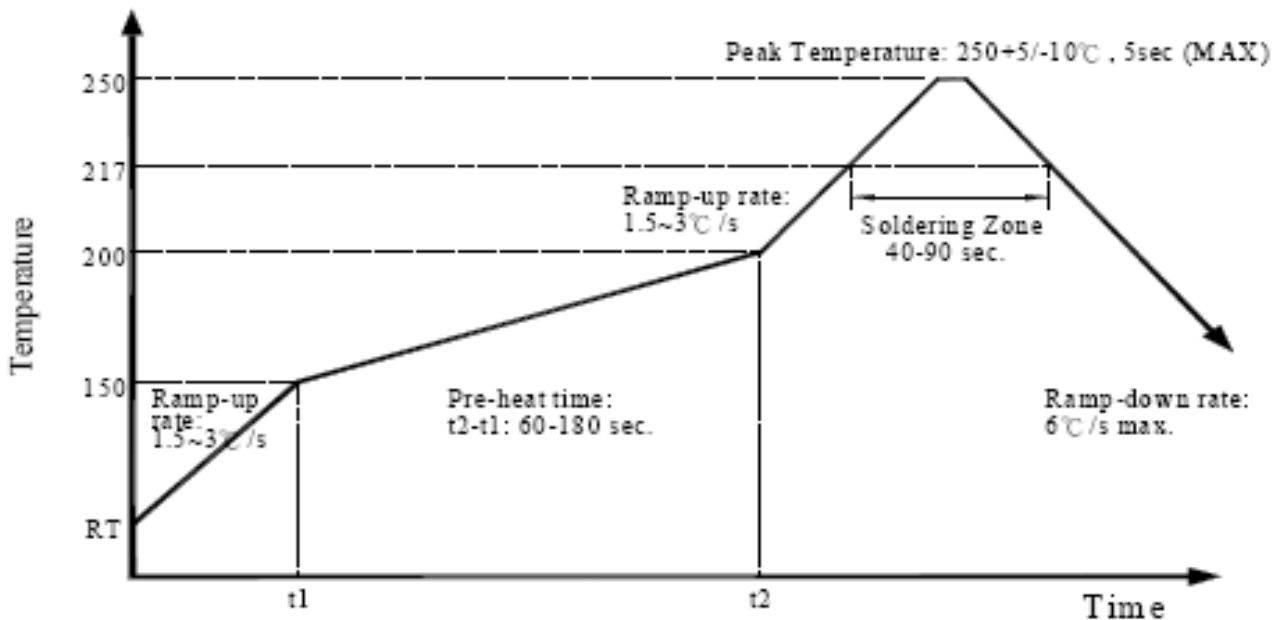
Recommended Soldering Conditions (Please use this product by reflow soldering)
Recommended Footprint

Recommended Land Pattern



Recommended Reflow Pattern

Reflow: until two times



Iron Soldering

Use a solder iron of less than 30W when soldering, do not allow the soldering iron tip directly touch the Ceramic body outside of terminal electrode seconds max at 250°C