# 1. Part No. Expression

# WD3532F750-RC-10

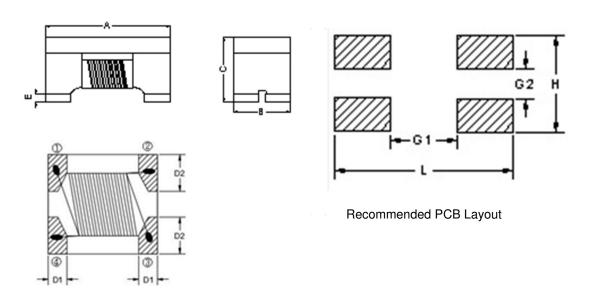
- (a)
- (b) (c) (d)
- (e)(f)

(g)

- (a) Series Code
- (b) Dimension Code
- (c) Material Code
- (d) Inductance Code

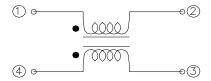
- (e) Packaging Code
- (f) Current Code
- (g) Special Code

## 2. Configuration & Dimensions: (Unit:- mm)



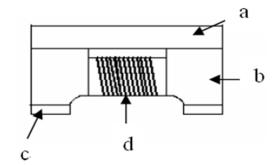
Α	В	С	D1	D2	L	Н	G1	G2
3.5±0.2	3.2±0.2	2.3±0.2	0.63±0.1	1.18±0.1	4.40 Ref	3.80 Ref	2.45 Ref	0.90 Ref

### 3. Schematic





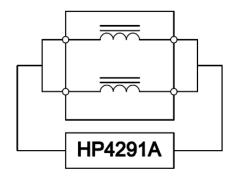
#### 4. Material List



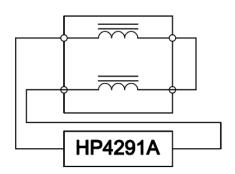
a)	Upper Plate
b)	Core
c)	Terminal
d)	Wire

### 5. Measuring Circuits 2 Lines

# Common mode



# Differential mode



### 6. General Specifications

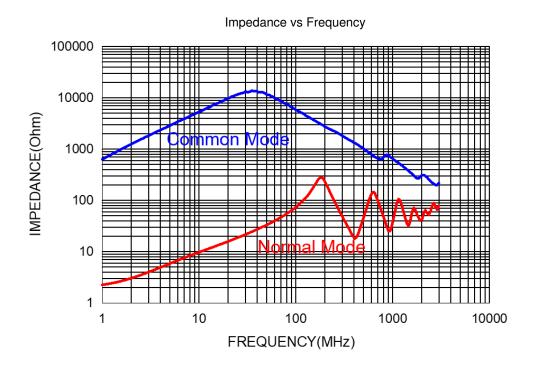
- (a) Operating Temp. : -40°C to +85°C (Including self temperature rise).
- (b) Storage Temp.: -40°C to +85°C (On board).
- (c) Irms: Based on temperature rise  $\Delta T$  40°C Max at rated current.
- (d) Storage Condition (Component in its packaging)
  - i) Temperature: Less than 40°C
  - ii) Humidity: 60% RH



### 7. Electrical Characteristics

Part Number	Inductance (uH) @0.1V/100kHz Min	DCR (Ω) Max	Rated Current (mA)	Rated Volt. (Vdc)	Withstand Volt. (Vdc) Max	IR (MΩ) Min
WD3532F750-RC-10	75	0.8	300	50	125	10

## 8. Characteristics Curve



### 9. Soldering and Mounting

Mildly activated rosin fluxes are preferred. Our terminations are suitable for re-flow soldering systems. If hand soldering cannot be avoided, the preferred technique is the utilization of hot air soldering tools.

#### 9-1 IR Soldering Reflow

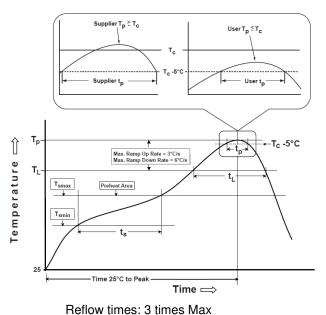
Recommended temperature profiles for lead free re-flow soldering in Figure 1, Table 1.1 & 1.2 (J-STD-020E).

#### 9-2 Iron Reflow

Products attachment with a soldering iron is discouraged due to the inherent process control limitations. In the event that a soldering iron must be employed the following precautions are recommended (Figure 2).

#### Note:

- a) Preheat circuit and products to 150°C.
- b) 355°C tip temperature (Max.)
- c) Never contact the ceramic with the iron tip
- d) 1.0mm tip diameter (Max.)
- e) Use a 20 watt soldering iron with tip diameter of 1.0mm
- f) Limit soldering time to 4~5 sec.



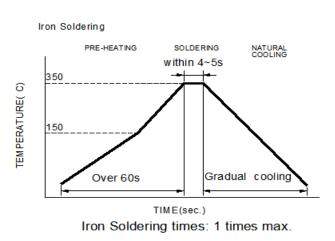


Figure 1: IR Soldering Reflow

Soldering iron method: 350± 5°C Max Figure 2: Iron soldering temperature profiles



Table (1.1): Reflow Profiles

Profile Type:	Pb-Free Assembly	
Preheat		
-Temperature Min (T <sub>smin</sub> )	150℃	
-Temperature Max (T <sub>smax</sub> )	200℃	
-Time (t <sub>s</sub> ) from (T <sub>smin</sub> to T <sub>smax</sub> )	60-120seconds	
Ramp-up rate (T₋to Tp)	3°C/second max.	
Liquidus temperature (T <sub>L</sub> )	217°C	
Time (t∟) maintained above T∟	60-150 seconds	
Classification temperature (T <sub>c</sub> )	See Table (1.2)	
Time (t <sub>p</sub> ) at Tc- 5°C (Tp should be equal to or less than Tc.)	< 30 seconds	
Ramp-down rate (T <sub>p</sub> to T <sub>L</sub> )	6°C /second max.	
Time 25°C to peak temperature	8 minutes max.	

**Tp**: maximum peak package body temperature, **Tc**: the classification temperature.

For user (customer) **Tp** should be equal to or less than **Tc**.

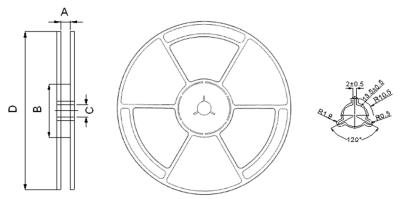
Table (1.2) Package Thickness/Volume and Classification Temperature (Tc)

	Package	Volume mm <sup>3</sup>	Volume mm <sup>3</sup>	Volume
	Thickness	<350	350-2000	mm³ >2000
DD Even	<1.6mm	260°C	260°C	260°C
PB-Free Assembly	1.6-2.5mm	260°C	250°C	245°C
Assembly	≥2.5mm	250°C	245°C	245°C

Reflow is referred to standard IPC/JEDEC J-STD-020E.

# 10. Packaging Information

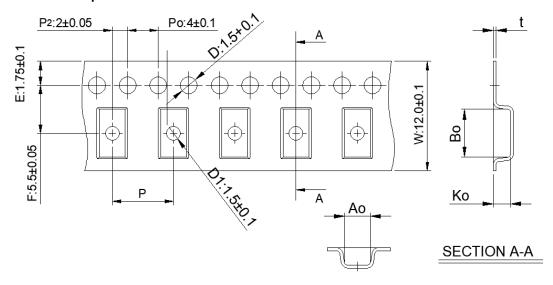
### 10-1 Reel Dimension



 Type
 A(mm)
 B(mm)
 C(mm)
 D(mm)

 13"x12mm
 12±1.5
 100±0.5
 13.2±0.5
 330±0.5

### 10-2 Tape Dimension / 12mm



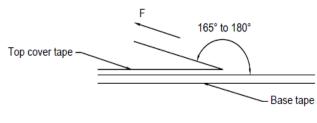
Series	Bo(mm)	Ao(mm)	Ko(mm)	P(mm)	t(mm)
WD3532F	3.80±0.1	3.40±0.1	2.50±0.1	8.00±0.1	0.26±0.05



#### 10-3 Packaging Quantity

Chip Size	WD3532F		
Chip / Reel	2000		
Inner Box	4000		
Carton	32000		

### 10-4 Tearing Off Force



The force for tearing off cover tape is 15 to 80 grams in the arrow direction under the following conditions.

Room Temp. (°C)	Room Humidity (%)	Room atm (hPa)	Tearing Speed mm/min
5~35	45~85	860~1060	300

#### **Application Notice:**

#### 1. Storage Conditions:

To maintain the solderability of terminal electrodes:

- a) Recommended products should be used within 12 months from the time of delivery.
- b) The packaging material should be kept where no chlorine or sulfur exists in the air.

### 2. Transportation:

- a) Products should be handled with care to avoid damage or contamination from perspiration and skin oils.
- b) Vacuum pick up is strongly recommended for individual components.
- c) Bulk handling should ensure that abrasion and mechanical shock are minimized.