



Jan. 2022 Ver.2.0
TDK Corporation

Multilayer Low Pass Filter

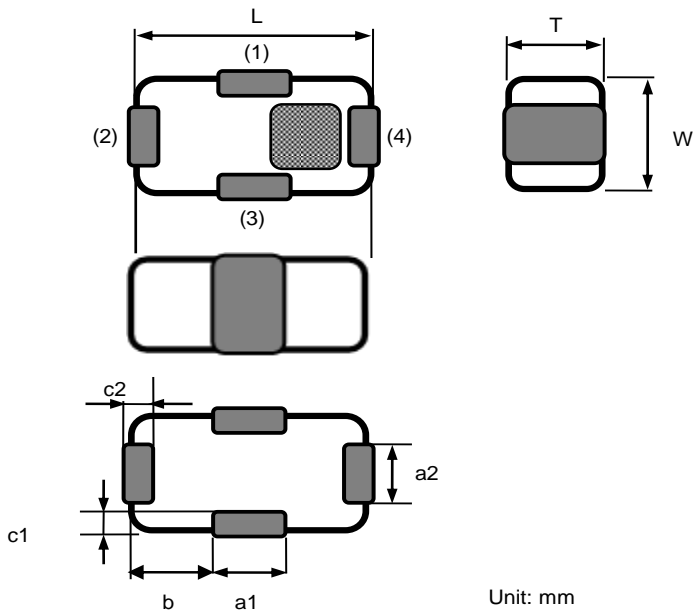
For 2400-2500MHz

DEA Series 1.0x0.5mm [EIA 0402] TYPE

P/N: **DEA102500LT-6316A2**

DEA102500LT-6316A2

■ SHAPES AND DIMENSIONS



Dimensions (mm)

| L | W | T | a1 | a2 | b | c1 | c2 |
|---------|---------|------|---------|---------|---------|----------------|----------------|
| 1.00 | 0.50 | 0.50 | 0.30 | 0.30 | 0.35 | 0.12 | 0.12 |
| +/-0.08 | +/-0.08 | Max | +/-0.15 | +/-0.15 | +/-0.15 | +0.12 /-0.1 | +0.12 /-0.1 |

Terminal functions

| | | | |
|-----|-------------|-----|------------|
| (1) | GND | (3) | GND |
| (2) | Output Port | (4) | Input Port |

■ TERMINATION FINISH

| Material |
|----------|
| Sn plate |

DEA102500LT-6316A2

■ ELECTRICAL CHARACTERISTICS

(Measurement)

| Parameter | Frequency (MHz) | TDK Spec | | |
|--------------------------------|-----------------|--------------|------|------|
| | | Min. | Typ. | Max. |
| Insertion Loss (dB) | 2400 to 2500 | - | 0.56 | 0.75 |
| | | | | |
| Attenuation (dB) | 3600 | 8 | 12.0 | - |
| | 4800 to 5000 | 30 | 37.0 | - |
| | 7200 to 7500 | 27 | 32.0 | - |
| Characteristic Impedance (ohm) | | 50 (Nominal) | | |

Ta = +25+/-5°C

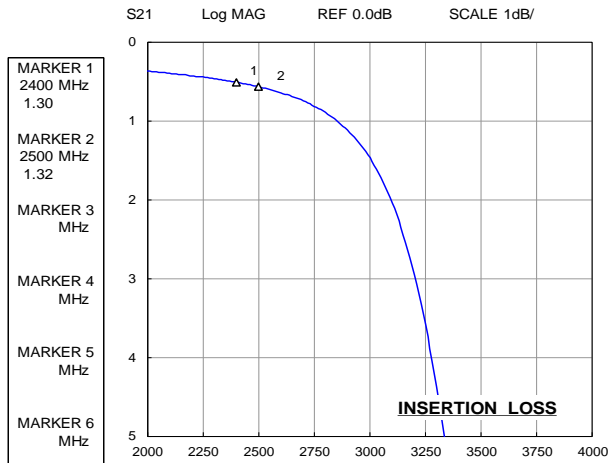
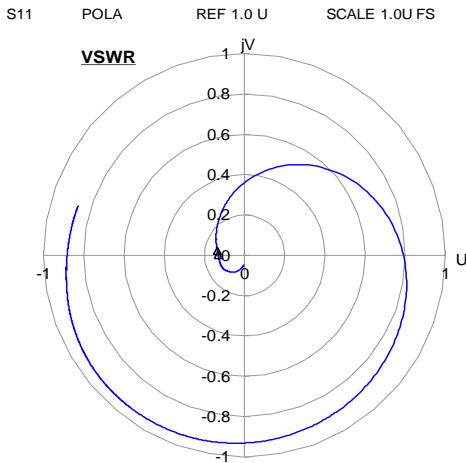
■ MAXIMUM RATINGS

| Parameter | | TDK Spec | Conditions |
|----------------------------|-----------------|---------------|----------------------|
| Operating temperature (°C) | | -40 to +85 °C | |
| Storage temperature (°C) | | -40 to +85 °C | |
| Power Handling (W) *1 | Frequency (MHz) | | |
| | 2400 to 2500 | 1 | CW |
| Human Body Model : HBM | @Each Port (V) | +/-1000 | 100pF / 1500ohm |
| Machine Model : MM | @Each Port (V) | +/-150 | 200pF / 0ohm |
| Charged Device Model : CDM | @Each Port (V) | +/-500 | Humidity : 60%RH max |

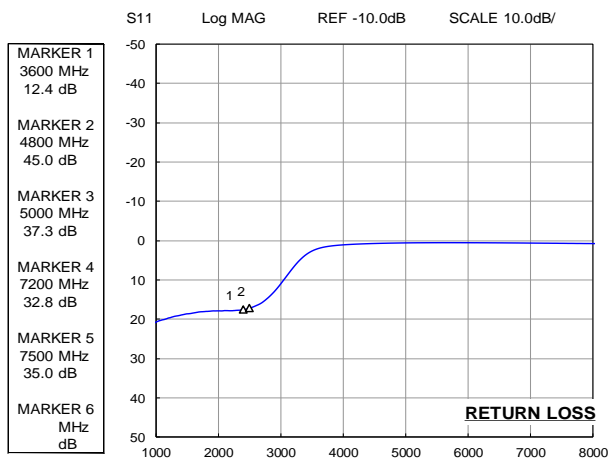
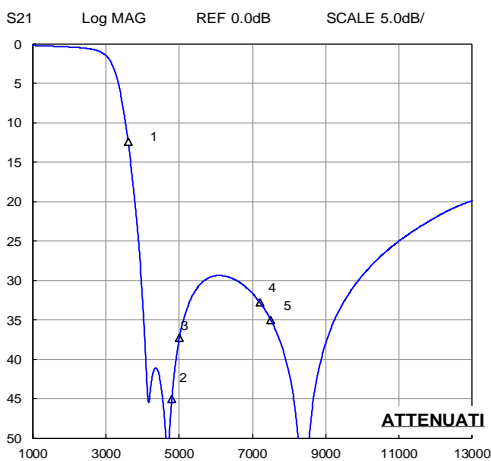
*1 : Refer to 3GPP TS 38.101-1 V15.2.0

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FREQUENCY CHARACTERISTICS



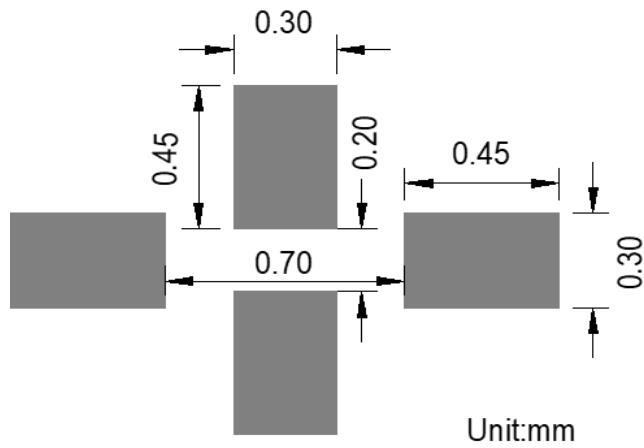
| | | |
|----------|----------|---------|
| MARKER 1 | 2400 MHz | 0.51 dB |
| MARKER 2 | 2500 MHz | 0.56 dB |
| MARKER 3 | MHz | dB |
| MARKER 4 | MHz | dB |
| MARKER 5 | MHz | dB |
| MARKER 6 | MHz | dB |



| | | |
|----------|----------|---------|
| MARKER 1 | 2400 MHz | 17.6 dB |
| MARKER 2 | 2500 MHz | 17.2 dB |
| MARKER 3 | MHz | dB |
| MARKER 4 | MHz | dB |
| MARKER 5 | MHz | dB |
| MARKER 6 | MHz | dB |

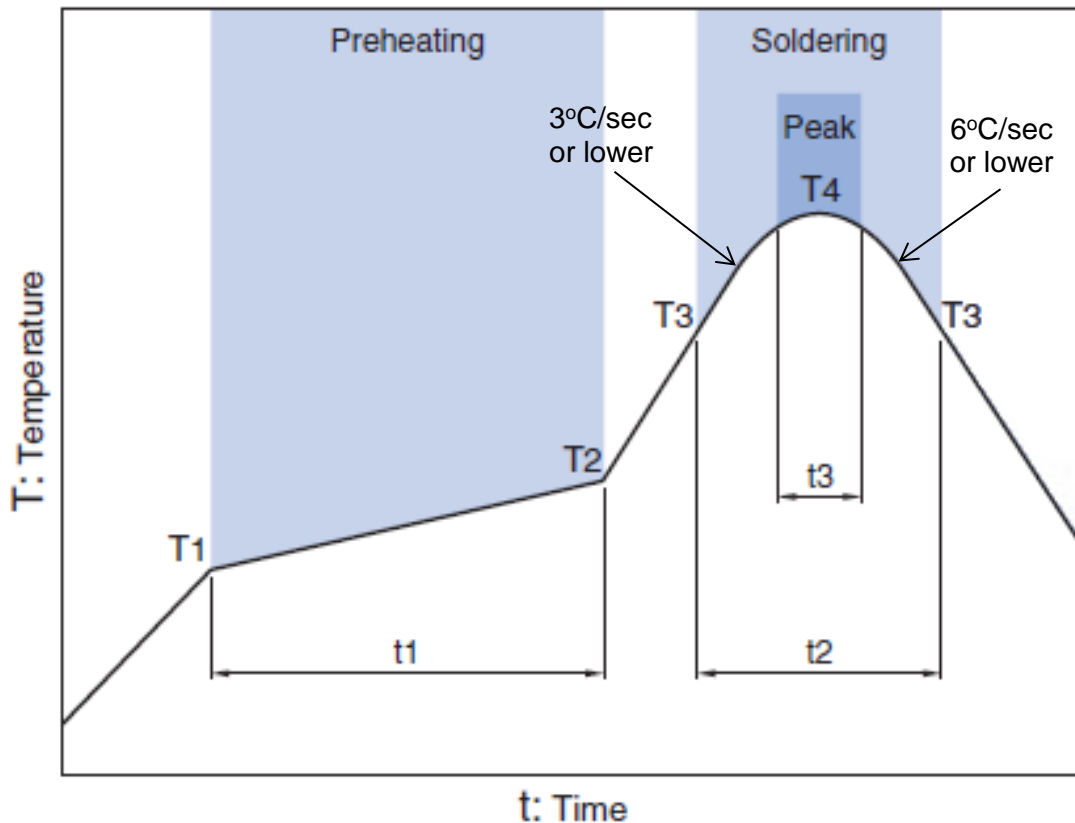
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■ RECOMMENDED LAND PATTERN



DEA102500LT-6316A2

RECOMMENDED REFLOW PROFILE



| Preheating | | | Soldering | | | |
|------------|-------|--------------|--------------------------|--------------|--------------|------------|
| | | | Critical zone (T3 to T4) | | Peak | |
| Temp. | | Time | Temp. | Time | Temp. | Time |
| T1 | T2 | t1 | T3 | t2 | T4 | t3 * |
| 150°C | 200°C | 60 to 120sec | 217°C | 60 to 120sec | 240 to 260°C | 30 sec Max |

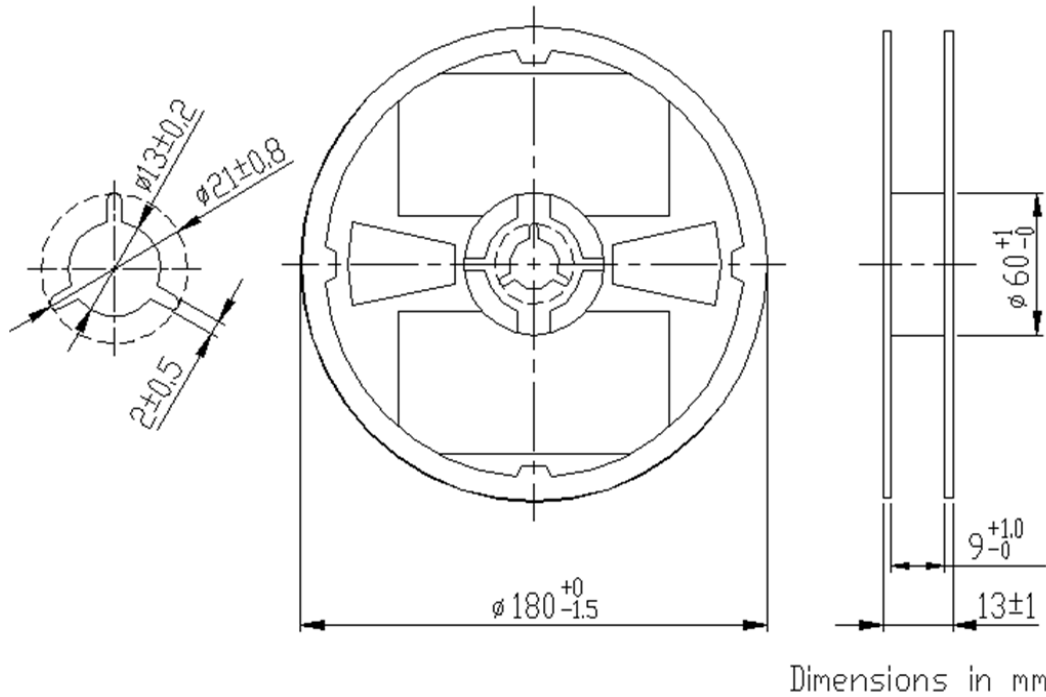
* t3 : Time within 5°C of actual peak temperature

The maximum number of reflow is 3.

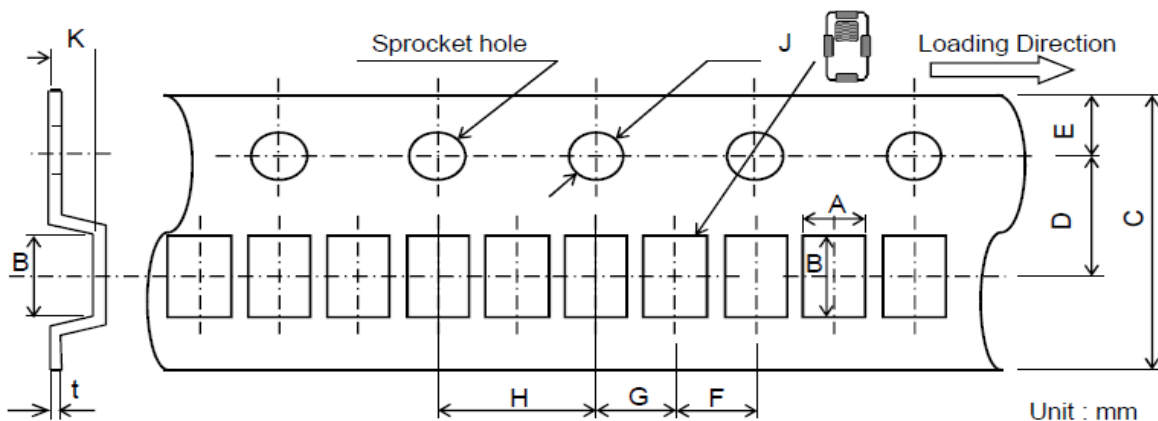
Note: Lead free solder is recommended.
Recommended solder is Sn-3.0Ag-0.5Cu. (M705 by Senju Metal Industry)

DEA102500LT-6316A2**PACKAGING STYLE**

Reel Dimensions



Carrier Tape



Dimensions (mm)

| A | B | C | D | E | F | G | H | J | K | t |
|---------|---------|--------|---------|--------|---------|---------|---------|---------|------|---------|
| 0.62 | 1.12 | 8.0 | 3.5 | 1.75 | 2.0 | 2.0 | 4.0 | 1.5 | 0.53 | 0.2 |
| +/-0.05 | +/-0.05 | +/-0.2 | +/-0.05 | +/-0.1 | +/-0.05 | +/-0.05 | +/-0.05 | +0.1/-0 | Max | +/-0.05 |

STANDARD PACKAGE QUANTITY**(pieces/reel)**

10,000

REMINDERS FOR USING THESE PRODUCTS

Before using these products, be sure to request the delivery specifications.

SAFETY REMINDERS

Please pay sufficient attention to the warnings for safe designing when using these products.

REMINDERS

The products listed on this catalog are intended for use in general electronic equipment (AV equipment, telecommunications equipment, home appliances, amusement equipment, computer equipment, personal equipment, office equipment, measurement equipment, industrial robots) under a normal operation and use condition.

The products are not designed or warranted to meet the requirements of the applications listed below, whose performance and/or quality require a more stringent level of safety or reliability, or whose failure, malfunction or trouble could cause serious damage to society, person or property.

Please understand that we are not responsible for any damage or liability caused by use of the products in any of the applications below or for any other use exceeding the range or conditions set forth in this catalog.

- | | |
|---|--|
| (1) Aerospace/Aviation equipment | (8) Public information-processing equipment |
| (2) Transportation equipment (cars, electric trains, ships, etc.) | (9) Military equipment |
| (3) Medical equipment | (10) Electric heating apparatus, burning equipment |
| (4) Power-generation control equipment | (11) Disaster prevention/crime prevention equipment |
| (5) Atomic energy-related equipment | (12) Safety equipment |
| (6) Seabed equipment | (13) Other applications that are not considered general-purpose applications |
| (7) Transportation control equipment | |

When using this product in general-purpose applications, you are kindly requested to take into consideration securing protection circuit/equipment or providing backup circuits, etc., to ensure higher safety.