



RFM Integrated Device, Inc.

PRODUCT SPECIFICATION

Part Number: CDR5000

DR Filter, DSRC, 5825 MHz,
BW 200, IL 1.5

ELECTRICAL CHARACTERISTICS:



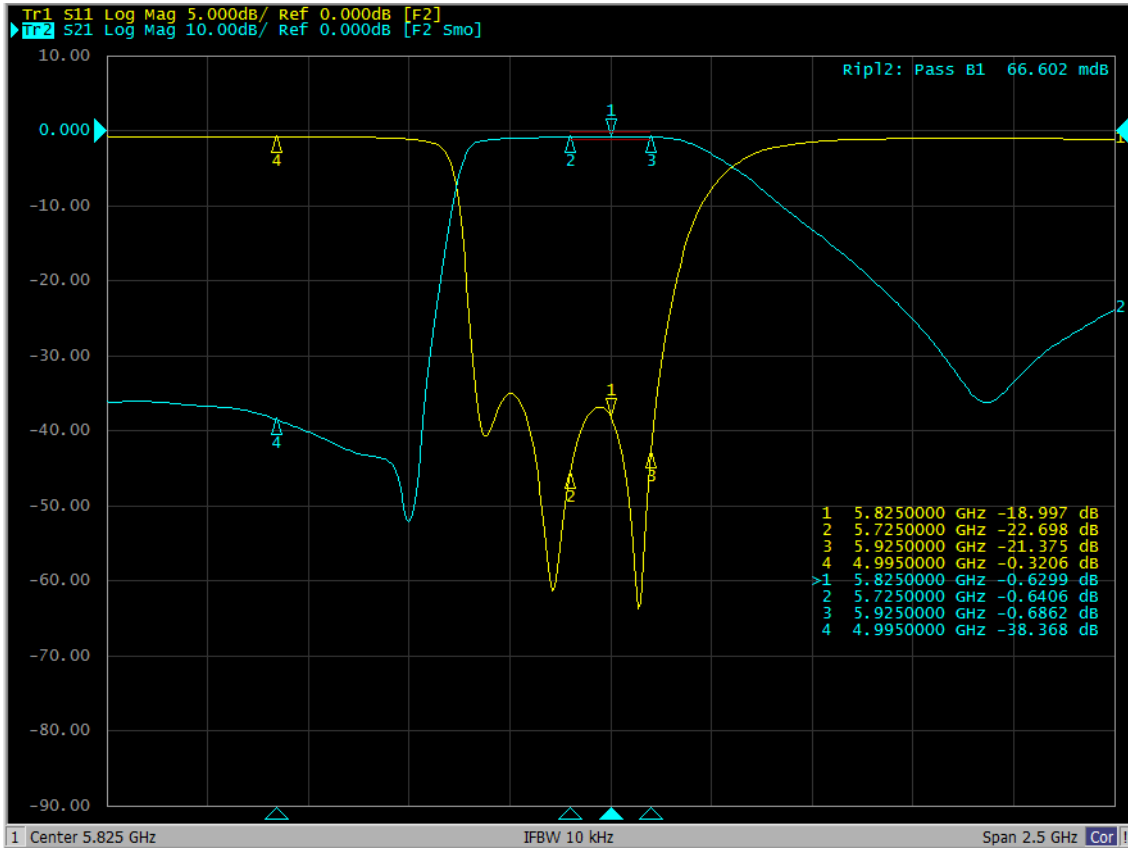
This filter satisfies Table 1 at Temperature Range : -40 to +85°C

CENTER FREQUENCY :fo=5825 MHz
 PASSBAND WIDTH :5725~5925 MHz
 INPUT/OUTPUT IMPEDANCE :50Ω
 Max. INPUT POWER : 1 W

TABLE 1

| NO. | ITEM | | SPECIFICATION | | |
|--|--------------------------|-------------|---------------|--------|--------|
| | | | Min | Typ | Max |
| 1 | PASS BAND INSERTION LOSS | | | 1.0 dB | 1.5 dB |
| 2 | PASS BAND RIPPLE | | | 1.0 dB | 1.2 dB |
| 3 | PASS BAND RETURN LOSS | | 10 dB | 12 dB | |
| 4 | STOP—BAND ATTENUATION | at 4995 MHz | 35 dB | 37 dB | |
| Item NO.4 specifies the absolute value of attenuation. | | | | | |

TYPICAL ELECTRICAL CHARACTERISTICS



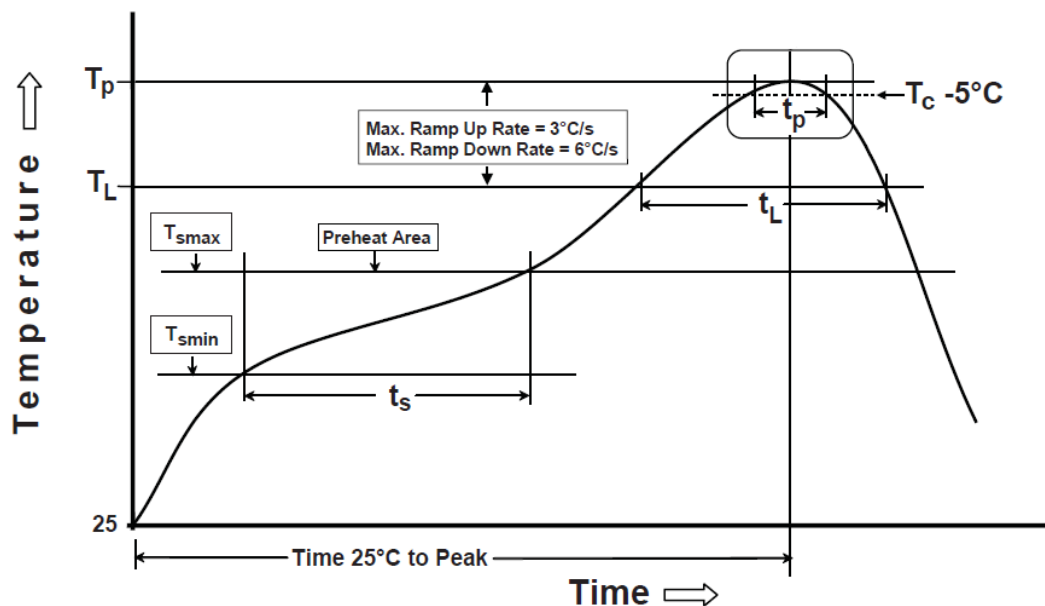
2. Recommended Reflow Soldering Profile

The products can be assembled following Pb-free assembly. According to the Standard **IPC/ JEDEC J-STD-020C**, the temperature profile suggested is as follow:

| Phase | Profile features | Pb-Free Assembly (SnAgCu) |
|------------------------------------|--|----------------------------------|
| PREHEAT | -Temperature Min(T_{smin}) -Temperature Max(T_{smax}) -Time(t_s) form (T_{smin} to T_{smax}) | 150°C 200°C 60-120 seconds |
| RAMP-UP | Avg. Ramp-up Rate (T_{smax} to T_P) | 3°C/second(max) |
| REFLOW | -Temperature(T_L) -Total Time above T_L (t_L) | 217°C 30-100 seconds |
| PEAK | -Temperature(T_P) -Time(t_p) | 260°C 3 second |
| RAMP-DOWN | Rate | 6°C / second max. |
| Time from 25°C to Peak Temperature | | 8 minutes max. |
| Composition of solder paste | | 96.5Sn/3Ag/0.5Cu |
| Solder Paste Model | | SHENMAO PF606-P26 |

Note : All the temperature measure point is on top surface of the component, if temperature over recommend, it will make component surface peeling or damage.

The graphic shows temperature profile for component assembly process in reflow ovens



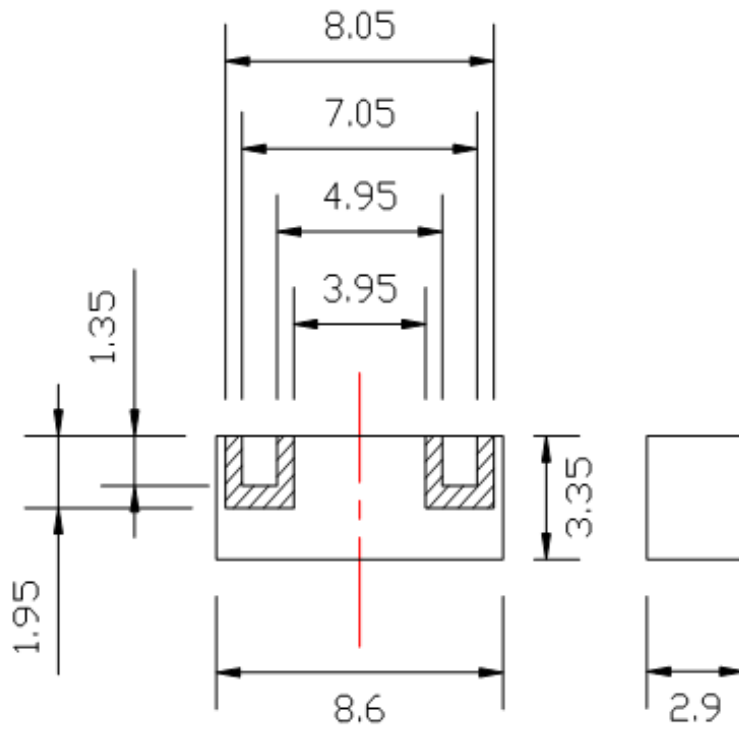
Soldering With Iron:

Soldering condition : Soldering iron temperature 270 ± 10 °C.

Apply preheating at 120°C for 2-3 minutes. Finish soldering for each terminal within 3 seconds, if soldering iron over temperature 270 ± 10 °C or 3 seconds, it will make component surface peeling or damage. Soldering iron can not leakage of electricity.

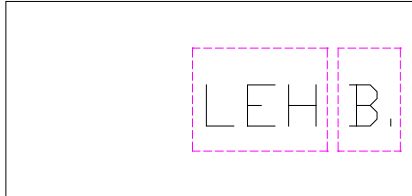
3.DIMENSION AND PCB LAYOUT

3-1-1 SHAPE AND DIMENSION



Dimensions in mm
Tolerance : ± 0.25

3-1-2 MARKING



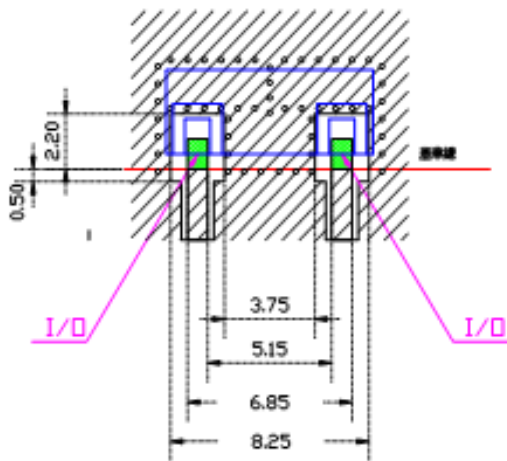
Product name : LEH for 5825H
 B. = Year/Month : Please refer to the Table-1

(Table-1)

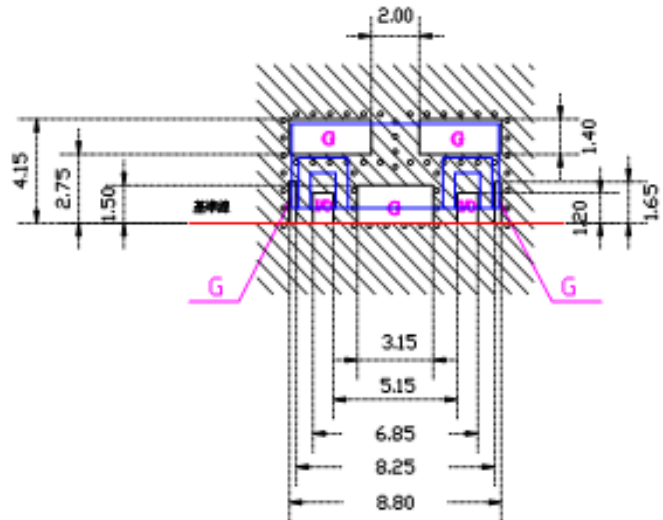
| Year | Month | Code | Year | Month | Code | Year | Month | Code | Year | Month | Code |
|------------------------------|-------|------|------------------------------|-------|------|------------------------------|-------|------|------------------------------|-------|------|
| 2012 2016 2020 2024 | 1 | A | 2013 2017 2021 2025 | 1 | N | 2014 2018 2022 2026 | 1 | A. | 2015 2019 2023 2027 | 1 | N. |
| | 2 | B | | 2 | P | | 2 | B. | | 2 | P. |
| | 3 | C | | 3 | Q | | 3 | C. | | 3 | Q. |
| | 4 | D | | 4 | R | | 4 | D. | | 4 | R. |
| | 5 | E | | 5 | S | | 5 | E. | | 5 | S. |
| | 6 | F | | 6 | T | | 6 | F. | | 6 | T. |
| | 7 | G | | 7 | U | | 7 | G. | | 7 | U. |
| | 8 | H | | 8 | V | | 8 | H. | | 8 | V. |
| | 9 | J | | 9 | W | | 9 | J. | | 9 | W. |
| | 10 | K | | 10 | X | | 10 | K. | | 10 | X. |
| | 11 | L | | 11 | Y | | 11 | L. | | 11 | Y. |
| | 12 | M | | 12 | Z | | 12 | M. | | 12 | Z. |

3-2 PCB RECOMMENDED PATTERN FOR FILTER

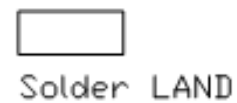
3-2-1
Conductive Material
Pattern



3-2-2
Solder resist
Pattern



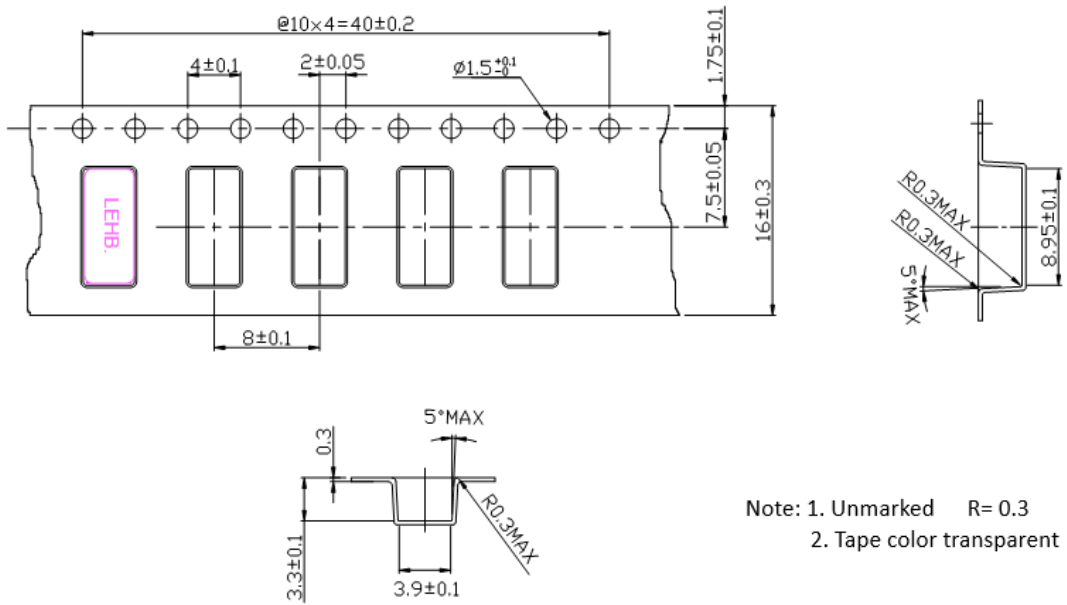
Tolerance: ± 0.2
I/O: Input/Output
G: Ground



I/O Pads must be connected to lines with 50Ω impedance. in the application a termination of 50Ω must be realized.

3-3 Delivery mode

3-3-1 Carrier tape



3-3-2 Reel

