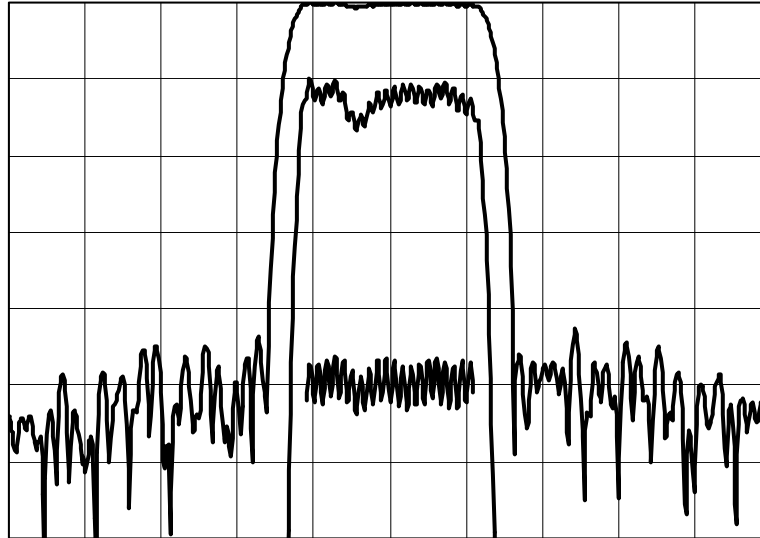




TYPICAL PERFORMANCE



Horizontal: 2.5 MHz/div Vertical (from top): Magnitude 10 dB/div
 Magnitude 1 dB/div
 Group Delay Deviation 150 ns/div

SPECIFICATION

| Parameter | Min | Typ | Max | Units |
|--|---------|---------|---------|----------|
| All electrical specifications apply over the full -10°C to +50°C operating range and include allowance for all manufacturing tolerances | | | | |
| Center Frequency F_C ¹ | 149.875 | 150.025 | 150.175 | MHz |
| 1 dB Bandwidth ² | 5.7 | 5.95 | | MHz |
| 3 dB Bandwidth ² | 6.1 | 6.42 | | MHz |
| 40 dB Bandwidth ² | | 7.95 | 8.3 | MHz |
| Stopband Rejection, 25 MHz to 135 MHz | 45 | 54 | | dB |
| Stopband Rejection, 165 MHz to 2000 MHz | 45 | 53 | | dB |
| Insertion Loss ³ | | 19.3 | 21 | dB |
| Passband Amplitude Variation, $F_C \pm 2.75$ MHz | | 0.67 | 0.8 | dB p-p |
| Passband Group Delay Variation, $F_C \pm 2.75$ MHz ⁴ | | 115 | 150 | ns p-p |
| Absolute Delay | | 1.81 | 2.0 | μ s |
| Input VSWR, $F_C \pm 2.85$ MHz ⁴ | | 1.2 | 1.8 | : 1 |
| Output VSWR, $F_C \pm 2.85$ MHz ⁴ | | 1.3 | 1.8 | : 1 |
| Maximum Input Level | 20 | | | dBm |
| Source and Load Impedance | | 50 | | Ω |
| Operating Temperature Range | -10 | | +50 | °C |
| Storage Temperature Range | -45 | | +85 | °C |

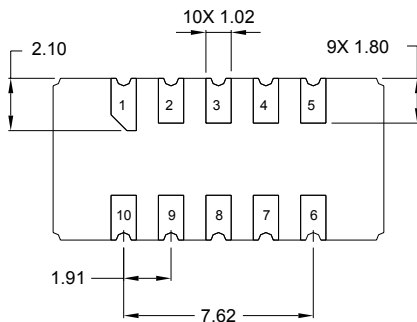
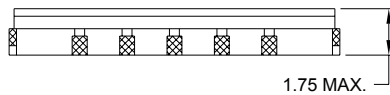
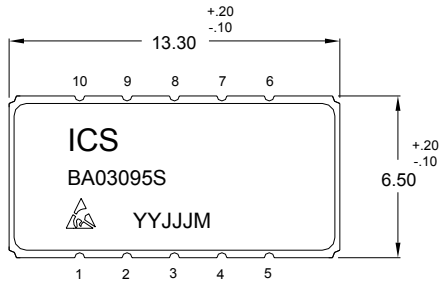
Notes:

1. Defined as the mean of the 10dB frequencies.
2. dB levels are taken to be relative to the insertion loss.
3. Measured at the maximum level (lowest insertion loss) of the response.
4. When matched as indicated on Page 3.

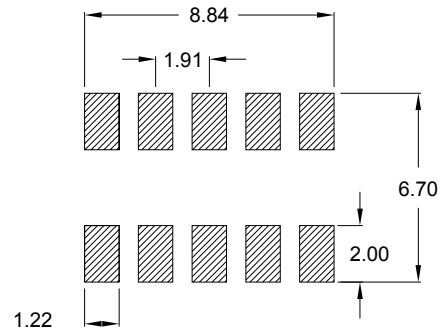


PACKAGE AND SUGGESTED PCB FOOTPRINT

PACKAGE INFORMATION



SUGGESTED PCB FOOTPRINT

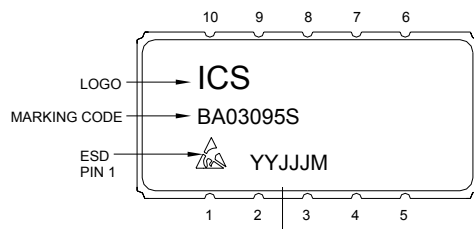


| PIN NO. | DESCRIPTION |
|-----------------|-------------|
| 10 | INPUT |
| 5 | OUTPUT |
| 1,2,3,4,6,7,8,9 | GROUND |

NOTES:
DIMENSIONS SHOWN ARE NOMINAL IN MILLIMETERS. ALL TOLERANCES ARE ± 0.15 MM EXCEPT OVERALL LENGTH AND WIDTH

Package Material:
Body: Al_2O_3 ceramic
Lid: Kovar, Ni plated
Terminations: Au plating 0.5-1.0 μ m, over a 2-6 μ m Ni plating

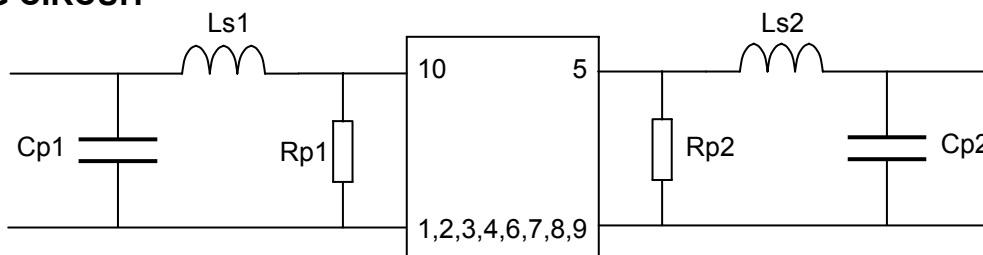
MARKING



The date code consists of:
YY = last two digits of year; JJJ = Julian day;
M = manufacturing site code



MATCHING CIRCUIT



Component values in 50Ω: Rp1 = 220 Ω Ls1 = 39 nH Cp1 = 47 pF
(Minimum inductor Q = 45) Rp2 = 130 Ω Ls2 = 33 nH Cp2 = 50 pF

Notes:

1. Optimum values may differ from these when using a different fixture or board layout. The values shown here are intended as a guide only.
2. Required component tolerances – resistors ±5%, inductors ±2%, capacitors ±5%.

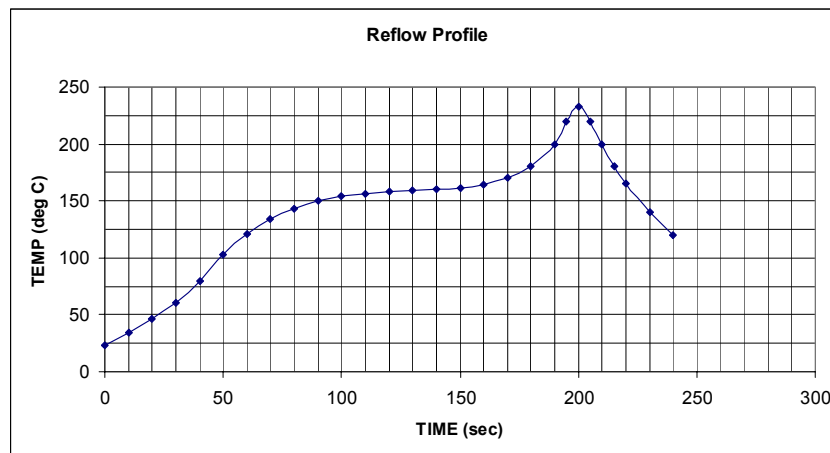
MAXIMUM RATINGS

| Parameter | Min | Max | Units |
|-------------------------------------|-----|-----|-------|
| Operating Temperature Range | -10 | +50 | °C |
| Storage Temperature Range | -45 | +85 | °C |
| Maximum Input Power Level | | 20 | dBm |
| D. C. Voltage between Each Terminal | | 15 | V |



PHYSICAL AND ENVIRONMENTAL CHARACTERISTICS

| Parameter | Qualification Conditions |
|---|--|
| Life Testing | High temperature bake at +85 °C for 168 hours. |
| Temperature Cycling | MIL-STD 883, Method 1010: -40 °C to +85 °C, 10 cycles, 10 minutes dwell at temperature extremes |
| Vibration | MIL-STD-202, Method 201A: 10 to 55 Hz, double amplitude of 0.06" for 2 hours in each axis. |
| Mechanical Shock | MIL-STD-883, Method 2002, Test Condition B: 1500 g, 3 impacts each axis |
| Solder Heat Resistance and Reflow Condition | Peak temperature 240+/-5 °C for 10 seconds. Pre-heat: 150-170 °C for 60 to 90 seconds. Peak dwell: over 200 °C for 23 to 26 seconds. Handling: Class 1 per MIL-STD-1686 Reflow Profile is shown at the bottom of this table. |
| Lead Integrity | MIL-STD 883 Method 2004, Condition D 8 oz for 30 seconds. |
| Solderability | MIL-STD-883 Method 2003: 245 °C +/-5 °C; 95% coverage; no steam aging |
| Hermeticity | MIL-STD 883 Method 1014: Condition A2 and Condition C (no bomb) |
| ESD Classification | Class I per MIL-STD-883 Method 3015 |
| Precautions | Do not subject devices to ultrasonic cleaning, which may cause deterioration and destruction of the device. |



ISO 9001
Registered