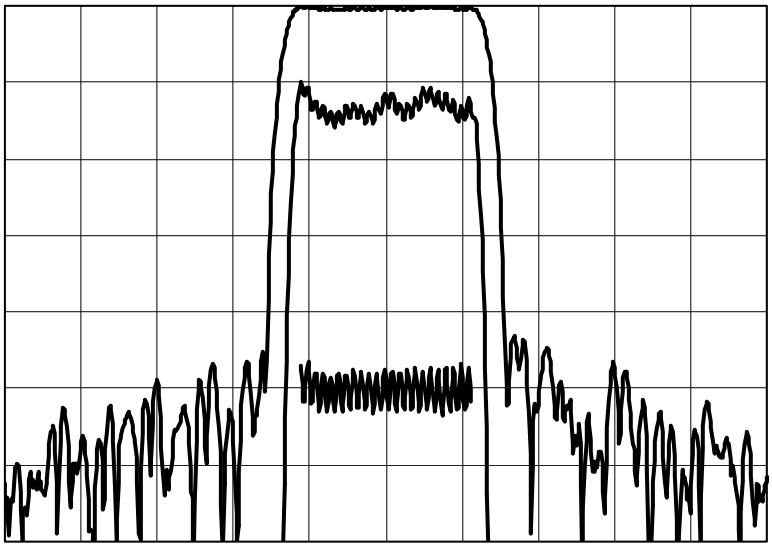
TYPICAL PERFORMANCE



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 -10ºC to +50ºC operating range and include allowance for all manufacturing tolerances				
Center Frequency F_C [1]	114.88	115	115.12	MHz
1 dB Bandwidth [2]	5.6	6.08		MHz
3 dB Bandwidth [2]	6.0	6.44		MHz
40 dB Bandwidth [2]		7.75	8.2	MHz
Stopband Rejection, 25 MHz to 100 MHz	45	58		dB
Stopband Rejection, 130 MHz to 1000 MHz	45	53		dB
Minimum Insertion Loss		18.9	20	dB
Passband Amplitude Variation, F_C ± 2.8 MHz [3]		0.6	0.8	dB p-p
Passband Group Delay Variation, F_C ± 2.8 MHz		100	150	ns p-p
Absolute Delay		2.0	2.1	µs
Input VSWR, F_C ± 2.8 MHz [4]		1.55	1.8	: 1
Output VSWR, F_C ± 2.8 MHz [4]		1.3	1.8	: 1
Maximum Input Level	20			dBm
Source and Load Impedance		50		Ω
Operating Temperature Range	-10		+50	ºC
Storage Temperature Range	-45		+85	ºC

Notes:

1. Defined as the mean of the 10dB frequencies.
2. dB levels are taken to be relative to the insertion loss.
3. Excludes final roll-offs to the 1dB points. Note that 'Passband Amplitude Variation' includes Ripple (fast variations) and Slope (slow variations).
4. When matched as indicated on Page 3.

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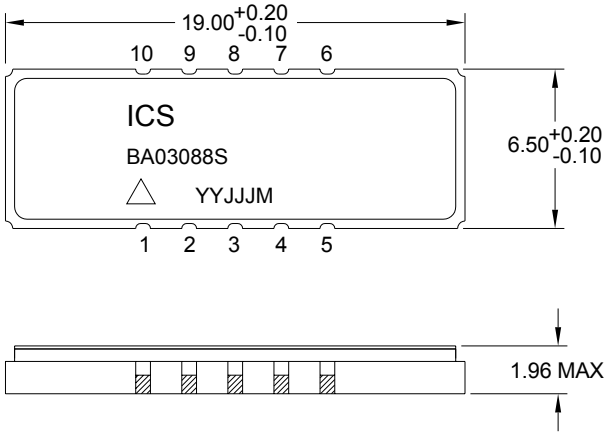
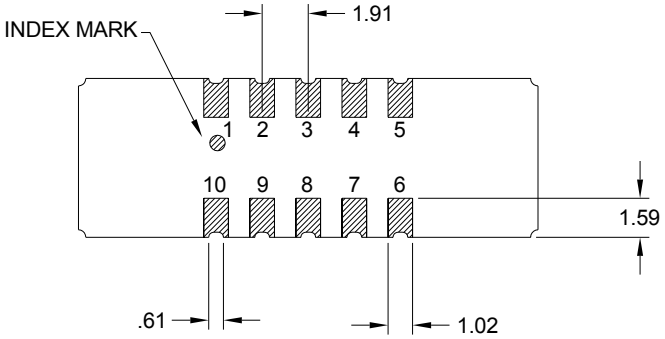
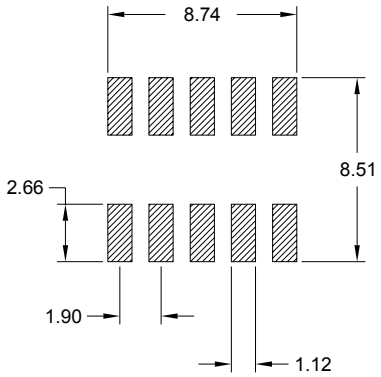
PACKAGE AND SUGGESTED PCB FOOTPRINT

PACKAGE INFORMATION





SUGGESTED PCB FOOTPRINT

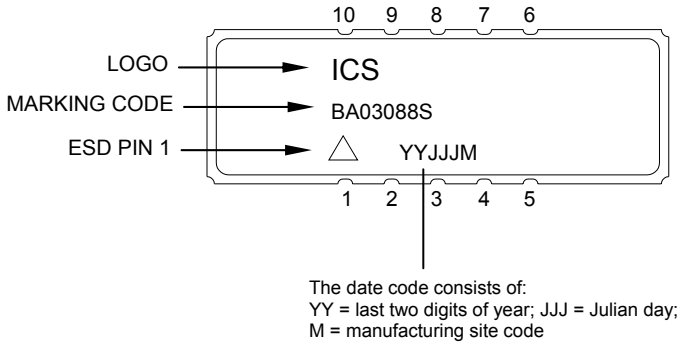


PIN NO.	DESCRIPTION
10	INPUT
5	OUTPUT
1,2,3,4,6,7,8,9	GROUND

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

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

MARKING



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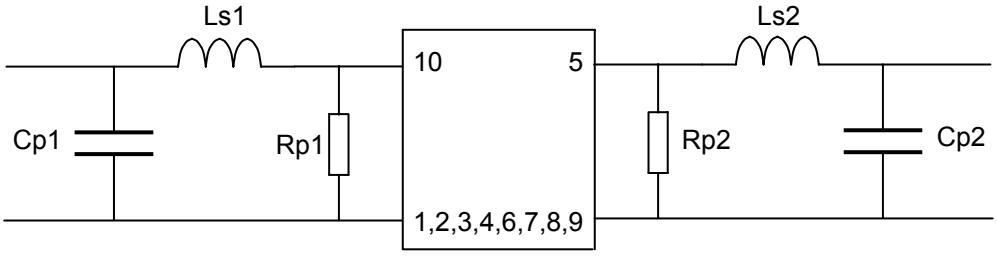
MATCHING CIRCUIT



Component values in 50Ω: Rp1 = 430 Ω Ls1 = 68 nH Cp1 = 56 pF
(Minimum inductor Q = 45) Rp2 = 300 Ω Ls2 = 68 nH Cp2 = 56 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	ºC
Storage Temperature Range	-45	+85	ºC
Input Power Level		20	dBm
D. C. Voltage between Each Terminal		15	V

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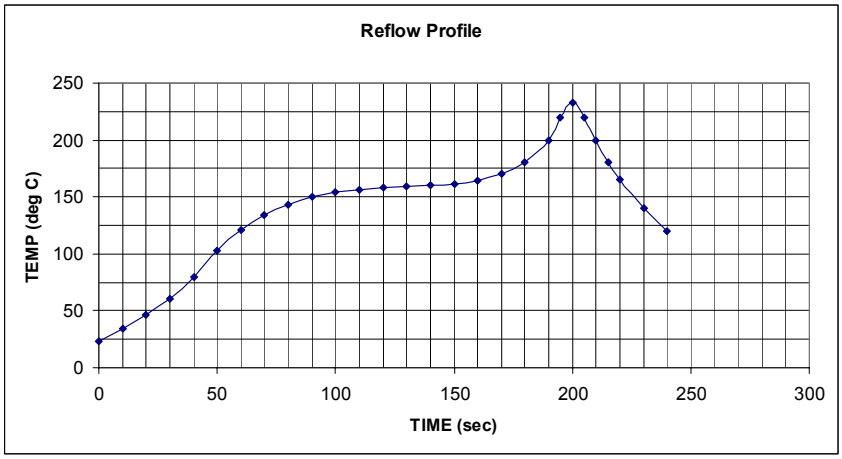
PHYSICAL AND ENVIRONMENTAL CHARACTERISTICS

Parameter	Qualification Conditions
Life Testing	High temperature bake at +85 ºC for 168 hours.
Temperature Cycling	MIL-STD 883, Method 1010: -40 ºC to +85 ºC, 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 ºC for 10 seconds. Pre-heat: 150-170 ºC for 60 to 90 seconds. Peak dwell: over 200 ºC 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 ºC +/-5 ºC; 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.



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