## **CRITCHLEY 100SMD**

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A compact encapsulated line isolating transformer, BABT, UL and BSi certified. Tested and approved in accordance with the requirements of EN41003: 1997, EN60950: 1992 (IEC950), EN60065: 1994 and AS/NZS 3260:1993 (BSi Certificate Nos. 7082 and 7456), UL1459, UL1950 and CAN/CSA 234-M90 (E171368 [M]).

#### **ELECTRICAL SPECIFICATION**

### **ENVIRONMENTAL & SAFETY SPECIFICATION**

DC Resistance:

 $148\Omega + 15\%$ Primary Secondary  $148\Omega \pm 15\%$ 

Series O/C Inductance: 200Hz >1.9H measured @ 250mV 2000Hz > 0.6H

4000Hz > 0.4H

Series O/C AC Resistance: 200Hz  $>1K\Omega$ measured @ 250mV  $2000Hz > 7K\Omega$  $4000Hz > 11K\Omega$ 

14.4mH max. Leakage Inductance:

200Hz - 4000Hz

Harmonic Distortion: 2f: -70dB max. 200Hz, -3dBm on primary, 3f: -47dB max.

TDdBm: -43dBm max.  $600\Omega$  load on secondary.

Insertion Loss: 2.6dB max.

200Hz - 4000Hz

 $(600\Omega \text{ ref.}, 600\Omega \text{ load})$ 

Frequency Response: ± 0.4dB max.

200Hz - 4000Hz

 $(600\Omega \text{ ref.}, 600\Omega \text{ load})$ 

Return Loss: >23dB (when using 300Hz - 4000Hz recommended circuit).

Max. DC current 0mA Voltage Breakdown: Tested according to

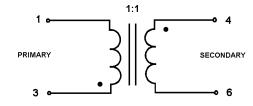
EN60950 part 5.3.2. (test voltage: 3000 Volts).

Storage temperature: Tested to IEC 68-2-14:1984

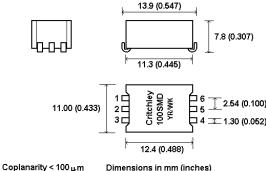
test procedure Nb.

(temperature range -25°C to +85°C).

## **CIRCUIT SCHEMATIC**



### **MECHANICAL SPECIFICATION**



Dimensions in mm (inches) tolerance ± 0.25(0.01)

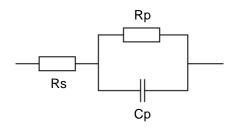
As this product is covered by a **BABT** Certificate of Recognition (CR0119) approvals time will be reduced.

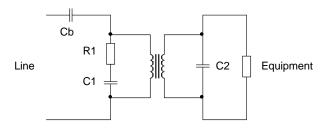


## **Application Circuits**

## Reference Impedance (ETS300 001):

## Circuit description:





	Ref. Impedance Values				Recommended Circuit Values			
Country	Rs	Rp	Ср	Cb	R1	C1	C2	Equipment
	(Ω)	(Ω)	(nF)	(μ <b>F</b> )	(Ω)	(nF)	(nF)	(Ω)
UK, New Zealand	370	620	310	6.8	*1070	100	55	*909
Germany, Switzerland	220	820	115	2.2	220	100	-	820
Australia	220	820	120	3.3	220	100	-	820
Sweden, Pan European (TBR 21)	270	750	150	3.3	220	100	-	750
Norway	120	820	110	3.3	220	100	10	820
Austria, Belgium, Canada, France, Finland, Hong Kong, Ireland, Italy, Japan, Netherlands, Portugal, Singapore, Taiwan, USA, Spain, Denmark		600Ω		6.8	*1100	-	22	*1100

Notes: \*E96 series resistor values.

Country reference networks are subject to change and interpretation. The above is intended as an initial reference and should you require more information for a network not shown please contact your local sales office. Software models are available on disk for all components.

# CRITCHLEY 100SMD - SOLDERING AND PACKING INFORMATION

### **SOLDERING**

The solderability of all batches of components is tested during manufacture.

The component is designed to provide high quality, consistent soldering by Infra Red Reflow process, however, the quality of the solder joints will vary depending on individual PCB layouts.

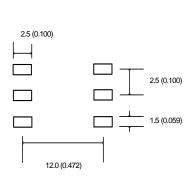
A representation of the suggested soldering profile is shown in figure 2.

## **PACKING**

The transformer is packed in a tape and reel format to the internationally used EIA 481-A (IEC 286-3) standard.

The components are supplied on a 13-inch reel, which contains 300 components.

The essential dimensions of the tape and reel are shown in figure 3.





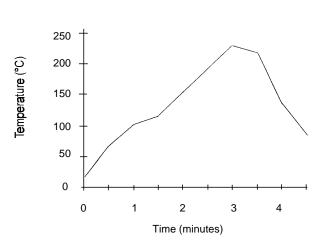


Figure 2

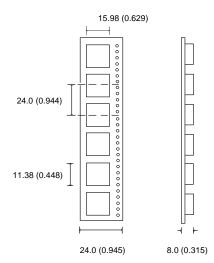


Figure 3

All dimensions in mm (inches)