

# MICROPROFILE PICK-OFF TRANSFORMER

# P2769

## Features

- \* Surface Mount
- \* 7mm seated height
- \* Vacuum encapsulated
- \* IEC 950, UL 1950 and EN 60950 certified
- \* UL Recognized Component
- \* CSA NRTL/C Certificate of Compliance

## Applications

- \* Telecommunications
- \* Pick-off applications
- \* Calling Line Identification
- \* Instrumentation

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## DESCRIPTION

P2769 is a high impedance microprofile transformer for applications where high performance and safety isolation to international standards are required in an extremely small case size.

P2769 is designed for "listening" applications when placed across a line, presenting a very high impedance to minimize circuit loading.

P2769 is certified to IEC 950, EN 60950, EN 41003 and UL1950. P2769 is a UL Recognized Component, and is supported by a CSA Certificate of Compliance and an IEC CB Test Certificate.



## SPECIFICATIONS

### Electrical

At T = 25°C unless otherwise stated.

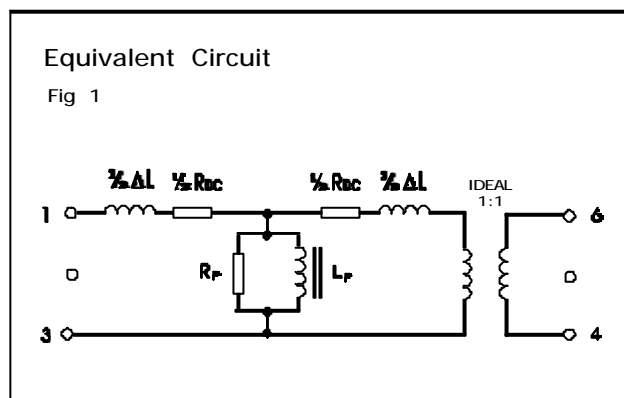
Parameter	Conditions	Min	Typ	Max	Units
Voltage isolation <sup>(1)</sup>	50Hz	3.88	-	-	kVrms
	DC	5.5	-	-	kV
Input impedance	300Hz – 3.4kHz, 1Vrms	30	-	-	kΩ
Operating range:	Ambient temperature				
Functional		-10	-	+85	°C
Storage <sup>(3)</sup>		-40	-	+125	°C
Humidity		-	-	95	%R.H.

Lumped equivalent circuit parameters as Fig. 1

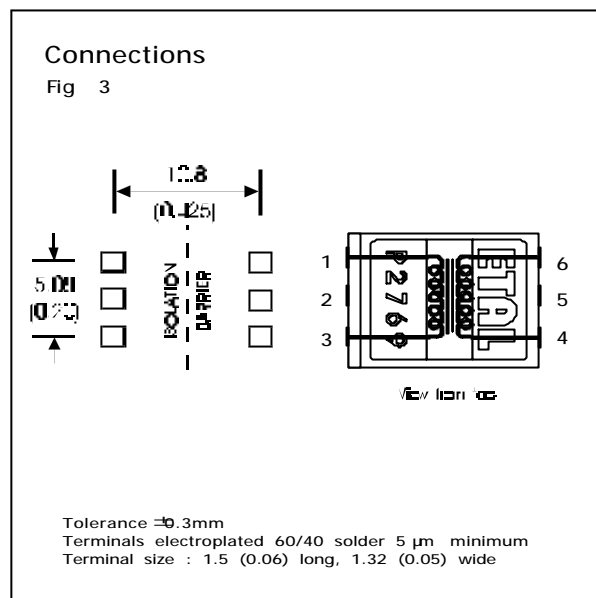
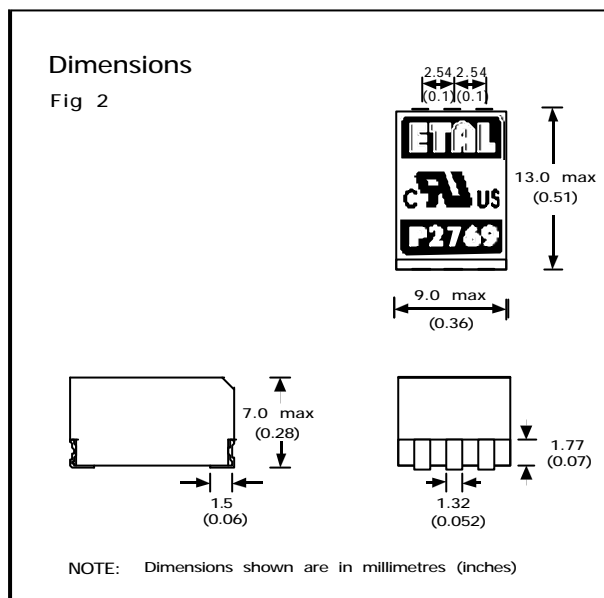
DC resistance, $R_{DC}$ <sup>(2)</sup>	Sum of windings	-	3300	-	Ω
Leakage inductance $\Delta L$		-	67	-	mH
Shunt inductance $L_p$	-43dBm 200Hz	-	30	-	H
Shunt loss $R_p$	-43dBm 200Hz	-	110	-	kΩ

### Notes

- Components are 100% tested at 6.5 kVDC.
- Caution:** do not pass DC through windings. Telephone line current, etc. must be diverted using choke or semiconductor line hold circuit.
- Excludes shipping materials. Components are dry-packed and sealed as shipped. Refer to Profec Technologies for appropriate storage conditions for sealed consignments.



## CONSTRUCTION



Dimensions shown are in millimetres (inches).

Geometric centres of outline and pad grid coincide within a tolerance circle of  $0.3\text{mm}\varnothing$ .

Windings may be used interchangeably as primary or secondary.

## SAFETY

Manufactured from materials conforming to flammability requirements of UL94V-0 and EN 60950:1992 (BS 7002:1992) sub-clause 1.2.13.2 (V-0).

Distance through reinforced insulation 0.4mm minimum.

Creepage and clearances in circuit are 7mm minimum where PCB pads do not exceed  $3\text{mm}\varnothing$ .

Constructed and fully encapsulated in accordance EN 60950:1992 (BS 7002:1992) and BS EN 41003:1997 (reinforced), 250Vrms maximum working voltage.

## CERTIFICATION

Certified by BSI to IEC 950:1991/A4:1996 (IEC CB Test Certificate No. GB441W) sub-clauses 1.5, 1.5.1, 1.5.3, 2.2, 2.2.2, 2.2.3, 2.2.4, 2.9.2, 2.9.3, 2.9.4, 2.9.6, 2.9.7, 4.4, 4.4.3.2 (class V-0) and 5.3 for a maximum working voltage of 250Vrms, nominal mains supply voltage not exceeding 250Vrms and a maximum operating temperature of  $+85^{\circ}\text{C}$  in Pollution Degree 2 environment, reinforced insulation.

CAN/CSA C22.2 No. 950-95/UL1950, certified by CSA, Third Edition, including revisions through to revision date March 1, 1998, based on Fourth Amendment of IEC 950, Second Edition, maximum working voltage 250Vrms, Pollution Degree 2, reinforced insulation.

UL File number E203175.

CSA Certificate of Compliance 1107696 (Master Contract 1188107).

Additionally, Profec Technologies certifies all transformers as providing voltage isolation of 3.88kVrms, 5.5kV DC minimum. All shipments are supported by a Certificate of Conformity to current applicable safety standards.

**ABSOLUTE MAXIMUM RATINGS**

(Ratings of components independent of circuit).

Short term isolation voltage (2s)	4.6kVrms, 6.5kVDC
DC current	100µA
Storage temperature	-40°C to +125°C
Soldering temperature	
Profile peak - either	240°C 60s
or	250°C 30s
or	260°C 10s

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