

**2.4W LMT2608 80.0:1 Transformer**
**DESCRIPTION**

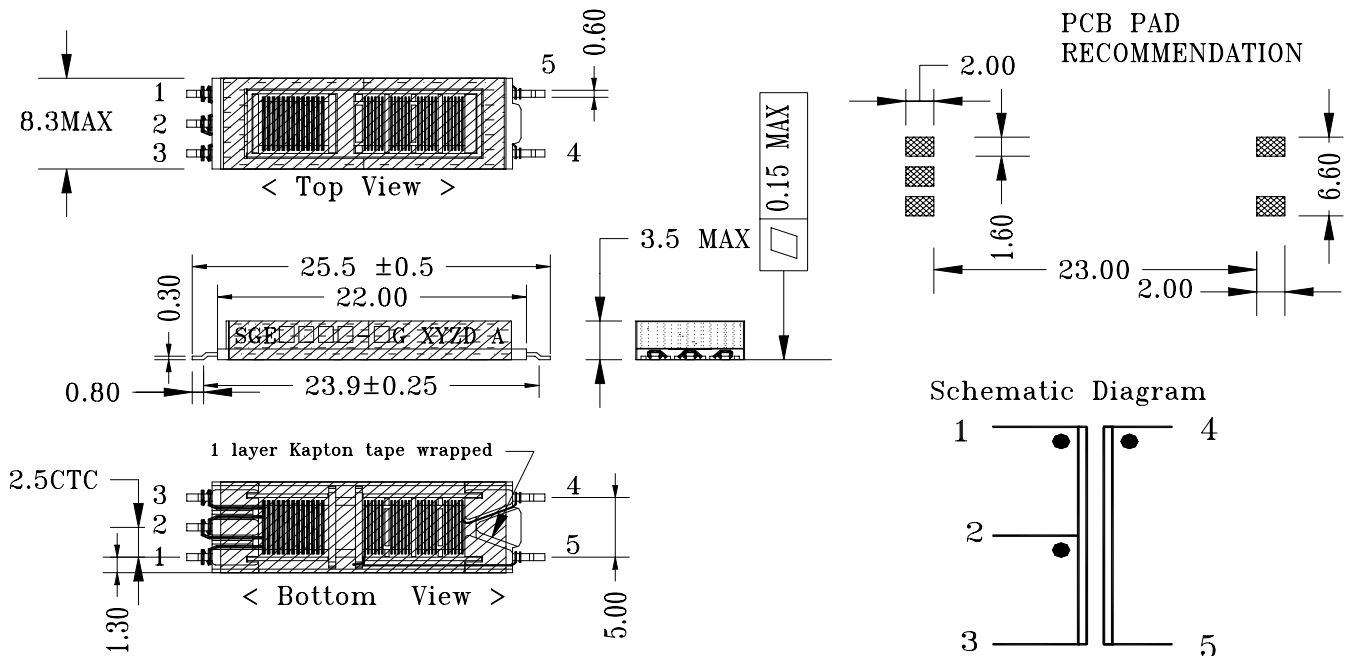
This document describes and specifies the electrical and mechanical characteristics of the SGE2690-1G high voltage transformer for CCFL inverter power supplies. SGE2690-1G is the RoHS compliant and Lead free transformer. For Reliability and Safety Specification, refer to SGE2606-4.

**ELECTRICAL CHARACTERISTICS**

| Items  | Inductance (@ 10Khz, 0.1V)   |     |      | Items  | DC. Resistance                     |     |      |
|--|------------------------------|-----|------|--|------------------------------------|-----|------|
|  | Min                          | Nom | Max  |  | Min                                | Nom | Max  |
| L1-2, L2-3 (μH)  | 13.8                         | 17  | 21.8 | R <sub>DC</sub> 1-2, R <sub>DC</sub> 2-3(mΩ)                       | 87                                 | 95  | 102  |
| L4-5 (mH)  | 310                          | 426 | 537  | R <sub>DC</sub> 4-5 (Ω)  | 470                                | 490 | 510  |
| L <sub>LKG1-2</sub> , L <sub>LKG2-3</sub> (μH)               | Inductance (@ 100KHz, 1V)    |     |      | R <sub>DC</sub> 1-2 / R <sub>DC</sub> 2-3                          | 0.96                               | 1   | 1.04 |
|  | 3.6                          | 4.1 | 4.6  |  |                                    |     |      |
| L <sub>LKG4-5</sub> (mH)                                     | NA                           | NA  | NA   | <b>Secondary Self Capacitance ( HP4192A 1MHz C meter, 30mVrms)</b> |                                    |     |      |
|  |                              |     |      | C <sub>4.5</sub> (pF)  | 1.5                                | 2.5 | 3.5  |
| <b>Rating</b>  |                              |     |      | <b>Dielectric Voltage Withstand</b>                                |                                    |     |      |
| Note: Max output power varies depend on operating condition. |                              |     |      | 60Hz, Arc-detect enabled, 5 sec. min. 200μA max. leakage current   |                                    |     |      |
| Max Open Output Voltage                                      | 1200V <sub>RMS</sub> , 3sec. |     |      | Secondary to Core  | 1500V <sub>RMS</sub> min. ( 60sec) |     |      |
| Max Output Voltage   | 850V <sub>RMS</sub>          |     |      | Primary to Core  | 750V <sub>RMS</sub> min.           |     |      |
| Max Output Power   | 2.4W                         |     |      | Primary to Secondary   | 750V <sub>RMS</sub> min.           |     |      |

**WINDING SPECIFICATIONS**

|                  | Primary                         |                                 | Secondary                       |
|------------------|---------------------------------|---------------------------------|---------------------------------|
|                  | Pin 1 – 2                       | Pin 2 – 3                       | Pin 4 – 5                       |
| Winding Sequence | 1S – 2F                         | 2S – 3F                         | 4S – 5F                         |
| Wire Size & Type | 0.23φ, Single Insulation, 180°C | 0.23φ, Single Insulation, 180°C | 0.03φ, Triple Insulation, 180°C |
| Number of Turns  | 10                              | 10                              | 1600                            |
| Winding Method   | Bifilar                         |                                 |                                 |

**PHYSICAL SPECIFICATIONS & WIRING DIAGRAM**


Note : This transformer is design for single ended application. Pin 5 must to be connected to low voltage side or ground.

**PART MARKING**

**SGE□□□□-□G XYZD A** – SGE2690-1G: MSC PN, XYZ: Datecode (X:YR, YZ=WK), D: Plant Code, A: Rev.#

**PACKAGING SPEC AND ORDER INFORMATION**

**Packaging Order Information** – SGE2690-1GTR (Tape and Reel )

**TAPE & REEL** : Refer to SGE2604-4 specification



**Microsemi**<sup>®</sup>

Specification Number  
**SGE2690-1G**  
Revision. A (090605)

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**NOTES**

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