



## 7W LMT3210 62.5:1 Transformer

This document describes and specifies the electrical and mechanical characteristics of the SGE2685-1G high voltage transformer for CCFL inverter power supplies. SGE2685-1G is the RoHS compliant and Lead free transformer. For Reliability and Safety Specification, refer to SGE2606-1.

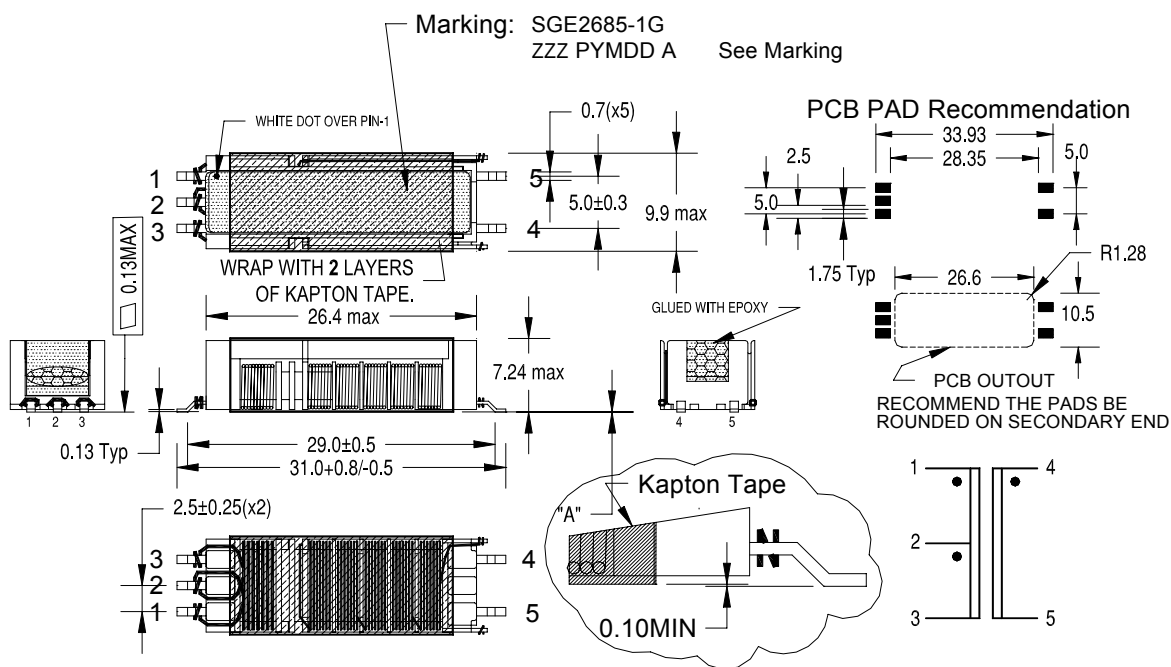
## ELECTRICAL CHARACTERISTICS

| Items                                                                         | Inductance (@ 10KHz, 0.1V)                   |                              |      | Items                                                                                                   | DC. Resistance |                                   |      |
|-------------------------------------------------------------------------------|----------------------------------------------|------------------------------|------|---------------------------------------------------------------------------------------------------------|----------------|-----------------------------------|------|
|                                                                               | Min                                          | Nom                          | Max  |                                                                                                         | Min            | Nom                               | Max  |
| L1-2, L2-3 (μH)                                                               | 112                                          | 130                          | 152  | R <sub>DC</sub> 1-2, R <sub>DC</sub> 2-3(mΩ)                                                            | 225            | 239                               | 253  |
| L4-5 (mH)                                                                     | 1600                                         | 1825                         | 2050 | R <sub>DC</sub> 4-5 (Ω)                                                                                 | 563            | 580                               | 620  |
| L <sub>LKG1-2</sub> , L <sub>LKG2-3</sub> (μH)                                | Inductance (@ 100KHz, 1V), with Short pin4-5 |                              |      | R1-2/R2-3                                                                                               | 0.96           | 1                                 | 1.04 |
|                                                                               | 15                                           | 16                           | 17   | Quality Factor Q <sub>1-2, Q2-3</sub>                                                                   | 15             | 18                                | -    |
| L <sub>LKG4-5</sub> (mH)                                                      | NA                                           | NA                           | NA   | Quality Factor Q <sub>4,5</sub>                                                                         | 20             | 24                                | -    |
| <b>Rating</b><br>Note: Max output power varies depend on operating condition. |                                              |                              |      | <b>Dielectric Voltage Withstand</b><br>60Hz, Arc-detect enabled, 5 sec. min. 200μA max. leakage current |                |                                   |      |
| Max Open Output Voltage                                                       |                                              | 2000V <sub>RMS</sub> , 3sec. |      | Secondary to Core                                                                                       |                | 2500V <sub>RMS</sub> min. ( 1min) |      |
| Max Output Voltage                                                            |                                              | 1600V <sub>RMS</sub>         |      | Primary to Core                                                                                         |                | 1000V <sub>RMS</sub> min.         |      |
| Max Output Power                                                              |                                              | 7W                           |      | Primary to Secondary                                                                                    |                | 2500V <sub>RMS</sub> min.         |      |

## WINDING SPECIFICATIONS

|                  | Primary                          |                                  | Secondary                        |
|------------------|----------------------------------|----------------------------------|----------------------------------|
|                  | Pin 1-2<br>1S – 2F               | Pin 2-3<br>2S-3F                 | Pin 4 – 5<br>4S – 5F             |
| Winding Sequence |                                  |                                  |                                  |
| Wire Size & Type | AWG#33, Single Insulation, 180°C | AWG#33, Single Insulation, 180°C | AWG#46, Triple Insulation, 180°C |
| Number of Turns  | 16                               | 16                               | 2000                             |
| Winding Method   | Bifilar                          |                                  |                                  |

## PHYSICAL SPECIFICATIONS & WIRING DIAGRAM



## PART MARKING

SGE□□□□-□G – SGE2685-1G: MSC PN  
ZZZ PYMDD A ZZZ: TMP(Maker code), P: Plant Code, Y: Year, M: Month, D: Date, A: Spec Rev.#

## PACKAGING SPEC AND ORDER INFORMATION

**Packaging Order Information – SGE2685-1GTR, TR - (Tape and Reel ) . Blank - Tray**  
**TAPE & REEL : Refer to SGE2604-1**



Specification Number  
**SGE2685-1G**  
Revision. A (101805)

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## NOTES

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