Flyback Transformers

For Microchip Grid-Connected Solar Microinverter using dsPIC

- Listed on Bill of Material for Reference Design AN1338
- Input voltage: 22 Vdc – 55 Vdc
- 3000 Vrms, one minute isolation from primary to secondary windings

Core material Ferrite
Terminations RoHS tin-silver (96.5/3.5) over tin over nickel over phos bronze. Other terminations available at additional cost.
Weight 94.3 g
Ambient temperature –40°C to +85°C
Storage temperature Component: –40°C to +85°C.
Tray packaging: –40°C to +80°C
Resistance to soldering heat Max three 40 second reflows at +260°C, parts cooled to room temperature between cycles
Moisture Sensitivity Level (MSL) 1 (unlimited floor life at <30°C / 85% relative humidity)
Failures in Time (FIT) / Mean Time Between Failures (MTBF) 38 per billion hours / 26,315,789 hours, calculated per Telcordia SR-332
Packaging 20 per tray
PCB washing Tested with pure water or alcohol only. For other solvents, see Doc787_PCB_Washing.pdf

<table>
<thead>
<tr>
<th>Part number</th>
<th>Inductance at 0 A² ±10% (µH)</th>
<th>DCR max (Ohms)²</th>
<th>SRF typ (kHz)</th>
<th>Leakage inductance² max (µH)</th>
<th>Turns ratio¹ pri:sec</th>
<th>Isat² (A)</th>
<th>Output</th>
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<tbody>
<tr>
<td>JA4635-AL</td>
<td>28</td>
<td>0.008</td>
<td>640</td>
<td>0.138</td>
<td>1 : 6</td>
<td>10.5</td>
<td>110 Vac</td>
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<td>KA4823-CL</td>
<td>28</td>
<td>0.008</td>
<td>360</td>
<td>0.115</td>
<td>1 : 12</td>
<td>10.5</td>
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1. Inductance is measured at 150 kHz, 0.1 Vrms.
2. DCR is with the secondary windings connected in parallel.
3. Leakage inductance is for the three windings of the primary with the secondary windings shorted.
4. Turns ratios are with the primary and secondary windings connected in parallel.
5. DC current at which the inductance drops 10% (typical) from its value without current.
6. Electrical specifications at 25°C.

Refer to Doc362 “Soldering Surface Mount Components” before soldering.

Recommended
PC board layout
(0.10 inch / 2.54 mm grid)

Dimensions are in inches

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