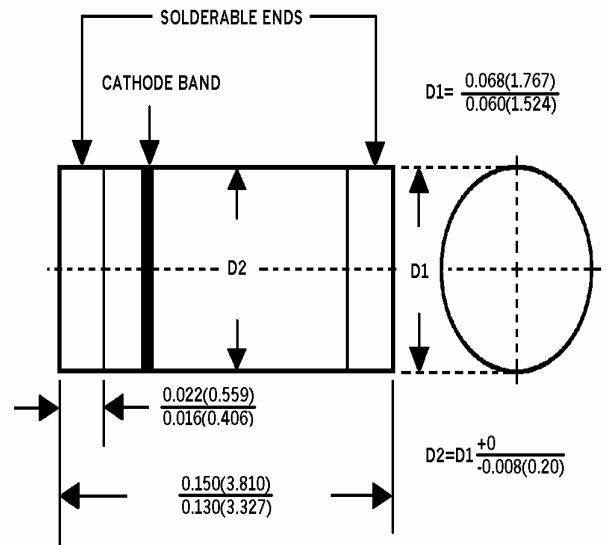


特徵 FEATURES

- 塑膠封裝。 Plastic MINI MELF package.
- 玻璃鈍晶片。 Glass passivated chip junction.
- 峰值脈沖功率能力是 150 瓦，當脈沖方形波寬度是 10/1000 μ s，重復率(占空系數)是 0.01%。
150W peak pulse power capability with a 10/1000 μ s waveform ,repetition rate(duty cycle): 0.01%.
- 極好的鉗位能力。 Excellent clamping capability.
- 快速響應時間。 Very fast response time.
- 逐漸低下的浪涌阻抗。 Low incremental surge resistance.
- 反向漏電典型值低於 1mA,高於 10V 的額定鉗位電壓
Typical ID less than 1mA above 10V rating
- 高溫焊接保證 High temperature soldering guaranteed:
250 $^{\circ}$ C/10 seconds of terminal

DO-213AA/MINI MELF



尺寸單位：inch(mm)

Dimension in inches (millimeters)

機械資料 MECHANICAL DATA

- 封裝： DO-213AA(GL34) Case:DO-213AA(GL34)
- 端子： 不光滑的鍍錫引線，可焊性按照 MIL-STD-202 標準，方法 208(E3)
Terminals: Matte tin plated leads,solderable per MIL-STD-202 method 208 E3 suffix for commercial grade.
- 極性： 單極性類型的色環端表示陰極。
Polarity: For unidirectional types the band denotes the cathode which is positive with respect to the anode under normal TVS operation.

雙極性類型尾標中綴“C”或者“CA”，電子特性應用于雙向。

For bidirectional types (add suffix “C” or “CA”), electrical characteristics apply in both directions.

極限值和溫度特性 $T_A=25^{\circ}\text{C}$ 除非另有規定。

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 $^{\circ}$ C Ambient temp. Unless otherwise specified.

| 參數 Parameter | 符號 SYMBOL | 數值 Value | 單位 UNITS |
|--|---------------------------|----------|----------------|
| 峰值脈沖功率消耗 (Fig.1) Peak pulse power dissipation(10/1000 μ s waveform) | Pppm | 150 | W |
| 最大瞬間正向電壓 IF = 10A (Fig.3) Maximum Instantaneous Forward Voltage | VF | < 3.5 | V |
| 典型熱阻(接面環繞) (Fig.2) Typical Thermal Resistance Junction-to-Ambient | R θ J _A | 75 | $^{\circ}$ C/W |
| 典型熱阻(接面引線) Typical Thermal Resistance Junction-to-lead | R θ J _L | 15 | $^{\circ}$ C/W |
| 峰值正向浪湧電流 8.3ms 單一正弦半波 (Fig.3) Peak forward surge current 8.3 ms single half sine-wave | I _{FSM} | 20 | A |
| 工作結溫和存儲溫度 Operating Junction And Storage Temperature Range | T _j , TSTG | -55+150 | $^{\circ}$ C |

Notes:1.Non-repetitive pulse curve Ippm=f(t)

2.Mounted on P.C board with 25 mm² copper pads at each terminal

3.Unidirectional diodes only



TGL34-6.8(A)(C)(CA)--TGL34-200(A)(C)(CA)

Surface Mount Unidirectional and Bidirectional TVS

| 型號 Type | 轉折電壓 Breakdown Voltage | | 測試電流 Test Current | 反向峰值 電壓 Stand-off voltage | 最大反向 漏電流 Maximum Reverse Leakage | 最大鉗位電壓 Maximum Clamping Voltage | 最大峰值 脈衝電流 Maximum Peak Pulse Current |
|----------------|---------------------------|-------------|----------------------|------------------------------------|--|--|--|
| | V _{BR} (V) | | I _T (mA) | V _{WM} (V) | I _D (μA) | V _C (V) | I _{PPM} (A) |
| TGL34-6.8(C) | 6.8±10% | 6.12...7.48 | 1.0 | 5.5 | 1000 | 10.8 | 13.9 |
| TGL34-6.8A(CA) | 6.8±5% | 6.45...7.14 | 1.0 | 5.8 | 1000 | 10.5 | 14.3 |
| TGL34-7.5(C) | 7.5±10% | 6.75...8.25 | 1.0 | 6.0 | 500 | 11.7 | 12.8 |
| TGL41-7.5A(CA) | 7.5±5% | 7.13...7.88 | 1.0 | 6.4 | 500 | 11.3 | 13.3 |
| TGL34-8.2(C) | 8.2±10% | 7.38...9.02 | 1.0 | 6.6 | 200 | 12.5 | 12.0 |
| TGL34-8.2A(CA) | 8.2±5% | 7.79...8.61 | 1.0 | 7.0 | 200 | 12.1 | 12.4 |
| TGL34-9.1(C) | 9.1±10% | 8.19...10.0 | 1.0 | 7.3 | 50 | 13.8 | 10.9 |
| TGL34-9.1A(CA) | 9.1±5% | 8.65...9.55 | 1.0 | 7.7 | 50 | 13.4 | 11.2 |
| TGL34-10(C) | 10±10% | 9.0...11.0 | 1.0 | 8.1 | 10 | 15.0 | 10.0 |
| TGL34-10A(CA) | 10±5% | 9.5...10.5 | 1.0 | 8.5 | 10 | 14.5 | 10.3 |
| TGL34-11(C) | 11±10% | 9.9...12.1 | 1.0 | 8.9 | 5 | 16.2 | 9.3 |
| TGL34-11A(CA) | 11±5% | 10.5...11.6 | 1.0 | 9.4 | 5 | 15.6 | 9.6 |
| TGL34-12(C) | 12±10% | 10.8...13.2 | 1.0 | 9.7 | 5 | 17.3 | 8.7 |
| TGL34-12A(CA) | 12±5% | 11.4...12.6 | 1.0 | 10.2 | 5 | 16.7 | 9.0 |
| TGL34-13(C) | 13±10% | 11.7...14.3 | 1.0 | 10.5 | 5 | 19.0 | 7.9 |
| TGL34-13A(CA) | 13±5% | 12.4...13.7 | 1.0 | 11.1 | 5 | 18.2 | 8.2 |
| TGL34-15(C) | 15±10% | 13.5...16.5 | 1.0 | 12.1 | 5 | 22.0 | 6.8 |
| TGL34-15A(CA) | 15±5% | 14.3...15.8 | 1.0 | 12.8 | 5 | 21.2 | 7.1 |
| TGL34-16(C) | 16±10% | 14.4...17.6 | 1.0 | 12.9 | 5 | 23.5 | 6.4 |
| TGL34-16A(CA) | 16±5% | 15.2...16.8 | 1.0 | 13.6 | 5 | 22.5 | 6.7 |
| TGL34-18(C) | 18±10% | 16.2...19.8 | 1.0 | 14.5 | 5 | 26.5 | 5.7 |
| TGL34-18A(CA) | 18±5% | 17.1...18.9 | 1.0 | 15.3 | 5 | 25.2 | 6.0 |
| TGL34-20(C) | 20±10% | 18.0...22.0 | 1.0 | 16.2 | 5 | 29.1 | 5.2 |
| TGL34-20A(CA) | 20±5% | 19.0...21.0 | 1.0 | 17.1 | 5 | 27.7 | 5.4 |
| TGL34-22(C) | 22±10% | 19.8...24.2 | 1.0 | 17.8 | 5 | 31.9 | 4.7 |
| TGL34-22A(CA) | 22±5% | 20.9...23.1 | 1.0 | 18.8 | 5 | 30.6 | 4.9 |
| TGL34-24(C) | 24±10% | 21.6...26.4 | 1.0 | 19.4 | 5 | 34.7 | 4.3 |
| TGL34-24A(CA) | 24±5% | 22.8...25.2 | 1.0 | 20.5 | 5 | 33.2 | 4.5 |
| TGL34-27(C) | 27±10% | 24.3...29.7 | 1.0 | 21.8 | 5 | 39.1 | 3.8 |
| TGL34-27A(CA) | 27±5% | 25.7...28.4 | 1.0 | 23.1 | 5 | 37.5 | 4.0 |
| TGL34-30(C) | 30±10% | 27.0...30.0 | 1.0 | 24.3 | 5 | 43.5 | 3.4 |
| TGL34-30A(CA) | 30±5% | 28.5...31.5 | 1.0 | 25.6 | 5 | 41.4 | 3.6 |
| TGL34-33(C) | 33±10% | 29.7...36.3 | 1.0 | 26.8 | 5 | 47.7 | 3.1 |
| TGL34-33A(CA) | 33±5% | 31.4...34.7 | 1.0 | 28.2 | 5 | 45.7 | 3.3 |
| TGL34-36(C) | 36±10% | 32.4...39.6 | 1.0 | 29.1 | 5 | 52.0 | 2.9 |
| TGL34-36A(CA) | 36±5% | 34.2...37.8 | 1.0 | 30.8 | 5 | 49.0 | 3.0 |
| TGL34-39(C) | 39±10% | 35.1...42.9 | 1.0 | 31.6 | 5 | 56.4 | 2.7 |
| TGL34-39A(CA) | 39±5% | 37.1...41.0 | 1.0 | 33.3 | 5 | 53.9 | 2.8 |



TGL34-6.8(A)(C)(CA)--TGL34-200(A)(C)(CA)

Surface Mount Unidirectional and Bidirectional TVS

| 型號 Type | 轉折電壓 Breakdown Voltage | | 測試電流 Test Current | 反向峰值 電壓 Stand-off voltage | 最大反向 漏電流 Maximum Reverse Leakage | 最大鉗位電壓 Maximum Clamping Voltage | 最大峰值 脈衝電流 Maximum Peak Pulse Current |
|----------------|---------------------------|-------------|----------------------|------------------------------------|--|--|--|
| | V _{BR} (V) | | I _T (mA) | V _{WM} (V) | I _D (μA) | V _C (V) | I _{PPM} (A) |
| TGL34-43(C) | 43±10% | 38.7...47.3 | 1.0 | 34.8 | 5 | 61.9 | 2.4 |
| TGL34-43A(CA) | 43±5% | 40.9...45.2 | 1.0 | 36.8 | 5 | 59.3 | 2.5 |
| TGL34-47(C) | 47±10% | 42.3...51.7 | 1.0 | 38.1 | 5 | 67.8 | 2.2 |
| TGL34-47A(CA) | 47±5% | 44.7...49.4 | 1.0 | 40.2 | 5 | 64.8 | 2.3 |
| TGL34-51(C) | 51±10% | 45.9...56.1 | 1.0 | 41.3 | 5 | 73.5 | 2.0 |
| TGL34-51A(CA) | 51±5% | 48.5...53.6 | 1.0 | 43.6 | 5 | 70.1 | 2.1 |
| TGL34-56(C) | 56±10% | 50.4...61.6 | 1.0 | 45.4 | 5 | 81 | 1.9 |
| TGL34-56A(CA) | 56±5% | 53.2...58.8 | 1.0 | 47.8 | 5 | 77 | 1.9 |
| TGL34- 62(C) | 62±10% | 55.8...68.8 | 1.0 | 50.2 | 5 | 89 | 1.7 |
| TGL34-62A(CA) | 62±5% | 58.9...65.1 | 1.0 | 53.0 | 5 | 85 | 1.8 |
| TGL34- 68(C) | 68±10% | 61.2...74.8 | 1.0 | 55.1 | 5 | 98 | 1.5 |
| TGL34-68A(CA) | 68±5% | 64.6...71.4 | 1.0 | 58.1 | 5 | 92 | 1.6 |
| TGL34- 75(C) | 75±10% | 67.5...82.5 | 1.0 | 60.7 | 5 | 108 | 1.4 |
| TGL34-75A(CA) | 75±5% | 71.3...78.8 | 1.0 | 64.1 | 5 | 103 | 1.5 |
| TGL34- 82(C) | 82±10% | 73.8...90.2 | 1.0 | 66.4 | 5 | 118 | 1.3 |
| TGL34-82A(CA) | 82±5% | 77.9...86.1 | 1.0 | 70.1 | 5 | 113 | 1.3 |
| TGL34- 91(C) | 91±10% | 81.9...100 | 1.0 | 73.7 | 5 | 131 | 1.1 |
| TGL34-91A(CA) | 91±5% | 86.5...95.5 | 1.0 | 77.8 | 5 | 125 | 1.2 |
| TGL34- 100(C) | 100±10% | 90.0...110 | 1.0 | 81.0 | 5 | 144 | 1.0 |
| TGL34-100A(CA) | 100±5% | 95.0...105 | 1.0 | 85.5 | 5 | 137 | 1.1 |
| TGL34- 110(C) | 110±10% | 99.0...121 | 1.0 | 89.2 | 5 | 158 | 0.9 |
| TGL34-110A(CA) | 110±5% | 105...116 | 1.0 | 94.0 | 5 | 152 | 1.0 |
| TGL34-120(C) | 120±10% | 108...132 | 1.0 | 97.2 | 5 | 173 | 0.9 |
| TGL34-120A(CA) | 120±5% | 114...126 | 1.0 | 102 | 5 | 165 | 0.9 |
| TGL34- 130(C) | 130±10% | 117...143 | 1.0 | 105 | 5 | 187 | 0.8 |
| TGL34-130A(CA) | 130±5% | 124...137 | 1.0 | 111 | 5 | 179 | 0.8 |
| TGL34- 150(C) | 150±10% | 135...165 | 1.0 | 121 | 5 | 215 | 0.7 |
| TGL34-150A(CA) | 150±5% | 143...158 | 1.0 | 128 | 5 | 207 | 0.7 |
| TGL34- 160(C) | 160±10% | 144...176 | 1.0 | 130 | 5 | 230 | 0.7 |
| TGL34-160A(CA) | 160±5% | 152...168 | 1.0 | 136 | 5 | 219 | 0.7 |
| TGL34- 170(C) | 170±10% | 153...187 | 1.0 | 138 | 5 | 244 | 0.6 |
| TGL34-170A(CA) | 170±5% | 162...179 | 1.0 | 145 | 5 | 234 | 0.6 |
| TGL34- 180(C) | 180±10% | 162...198 | 1.0 | 146 | 5 | 258 | 0.6 |
| TGL34-180A(CA) | 180±5% | 171...189 | 1.0 | 154 | 5 | 246 | 0.6 |
| TGL34- 200(C) | 200±10% | 180...220 | 1.0 | 162 | 5 | 287 | 0.5 |
| TGL34-200A(CA) | 200±5% | 190...210 | 1.0 | 171 | 5 | 274 | 0.5 |

雙極性類型尾標中綴“C”或者“CA”，電子特性應用於雙向。

For bidirectional types (add suffix “C” or “CA”), electrical characteristics apply in both directions.

FIG. 1-峰值脉冲功率定额曲线

FIG. 1 – NON-REPETITIVE PULSE RATING CURVE

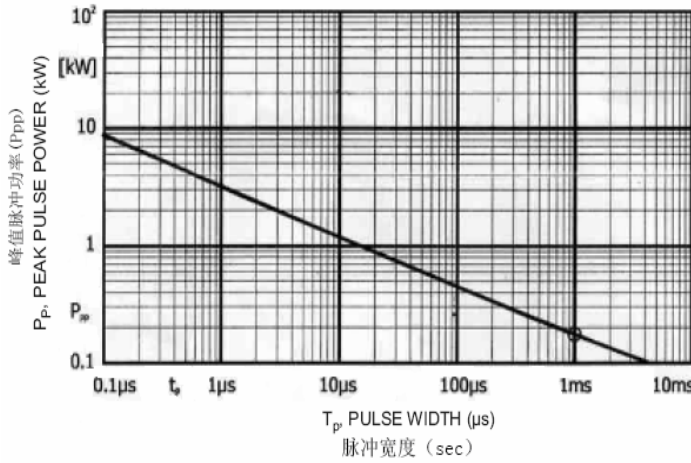


FIG. 2-脉冲降额曲线

FIG. 2 – PULSE CURVE DERATING

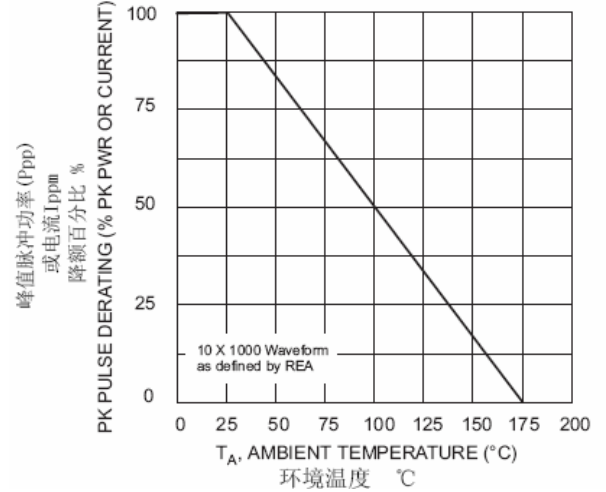


FIG. 3-脉冲波形

FIG. 3 – PULSE WAVEFORM

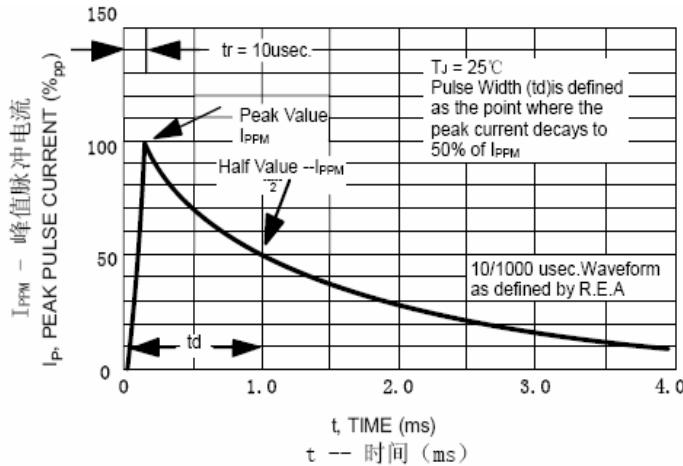


FIG. 4-反向特性曲线(典型值)

FIG. 4 – TYPICAL REVERSE CHARACTERISTICS

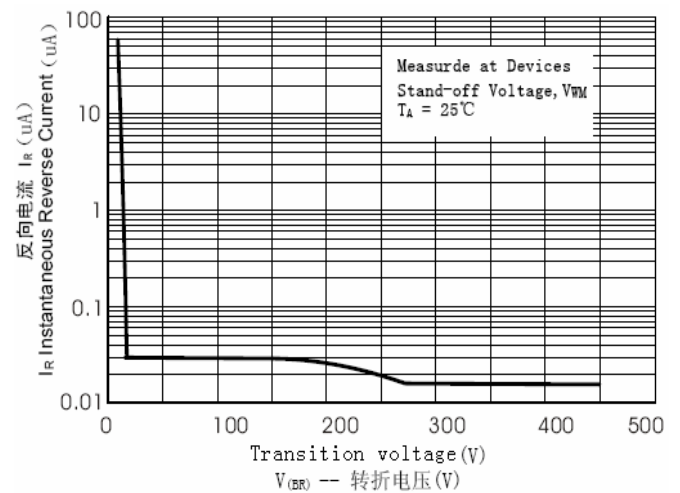


FIG. 5-典型瞬态热阻

FIG. 5 – TYPICAL TRANSIENT THERMAL IMPEDANCE

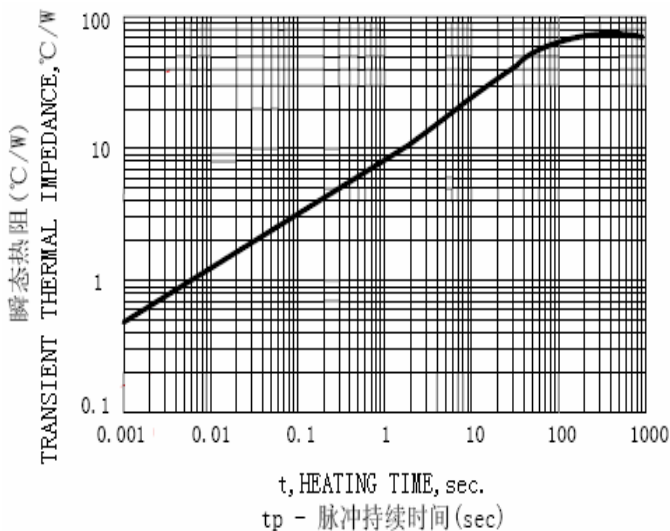


FIG. 6-浪涌特性曲线(最大值)

FIG. 6 – MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

