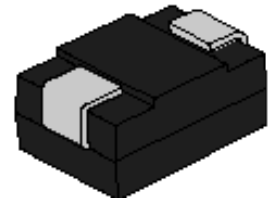


FEATURES:

- ✧ Excellent clamping capability.
- ✧ Low profile package and low inductance.
- ✧ High peak pulse power capability at 1.2/50 μ s&8/20 μ s waveform.
- ✧ Fast response time: typically less than 1.0ps from 0V to V_{BR} min.
- ✧ High temperature soldering: 260 $^{\circ}$ C/40s at terminals.
- ✧ Plastic package has underwriters laboratory flammability 94V-0.
- ✧ For surface mounted applications in order to optimize board space.



SMB



Bi-directional
Symbol

Maximum Ratings & Thermal Characteristics :

($T_A = 25^{\circ}$ C unless otherwise noted)

| Items | Symbol | Value | Unit |
|--|----------------|-------------|--------------|
| Peak pulse power (tp= 8/20 μ s) | P_{PPM} | 30 | KW |
| Peak pulse current (tp= 8/20 μ s) | I_{PPM} | 780 | A |
| Lead soldering temperature | T_L | 260(10 sec) | $^{\circ}$ C |
| Operating junction and storage temperature range | T_J, T_{STG} | -55 to +150 | $^{\circ}$ C |

ELECTRICAL CHARACTERISTICS (T_A=25°C)

| Part Number | V _R | I _R @V _R | V _{BR} @I _T | | I _T | V _C @V _{PP} ^① | V _{PP} ^① |
|-------------|----------------|--------------------------------|---------------------------------|--------|----------------|--|------------------------------|
| | | | min(V) | max(V) | | | |
| Bi-Polar | V | μA | | | mA | max(V) | V |
| LM1K24CA | 24 | 1 | 26 | 29.5 | 1 | 35 | 2000 |

① Surge waveform: 1.2/50μs & 8/20μs

V_R: Stand-off voltage -- Maximum voltage that can be applied

V_{BR}: Breakdown voltage

V_C: Clamping voltage -- Peak voltage measured across the suppressor at a specified V_{PP}

I_R: Reverse leakage current

RATINGS AND V-I CHARACTERISTICS CURVES (T_A=25°C, unless otherwise noted)

FIG.1: V- I curve characteristics (Bi-directional)

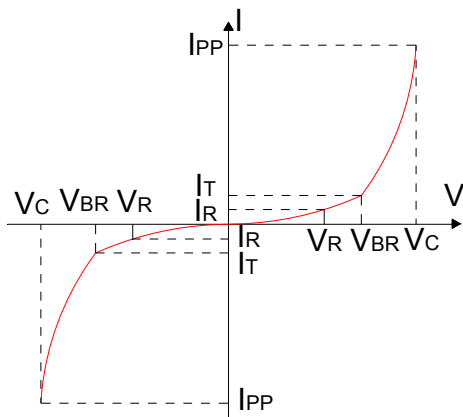
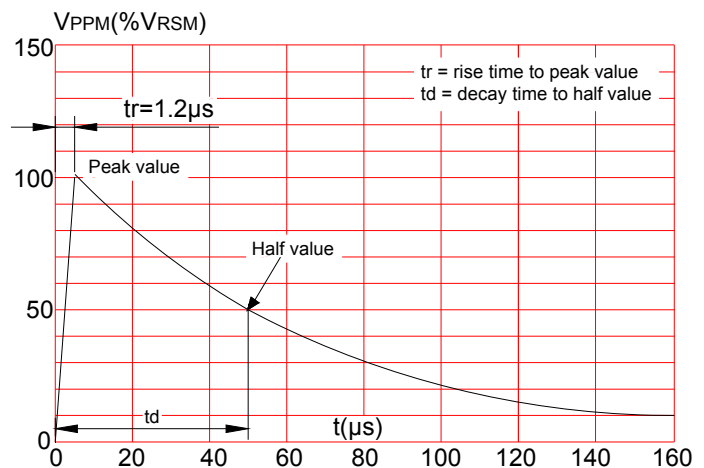
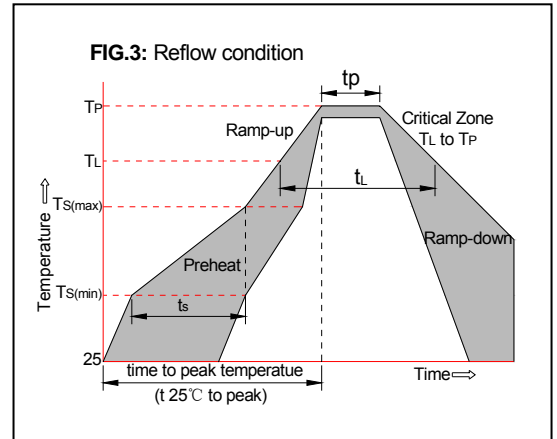


FIG.2: Pulse waveform

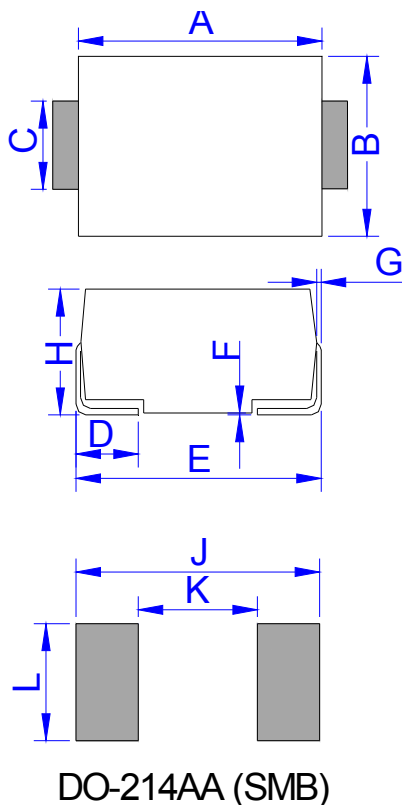


SOLDERING PARAMETERS

| | | |
|--|-----------------------------------|---------------------------------|
| Reflow Condition | | Pb-Free assembly (see FIG.3) |
| Pre Heat | -Temperature Min ($T_{s(min)}$) | +150°C |
| | -Temperature Max($T_{s(max)}$) | +200°C |
| | -Time (Min to Max) (t_s) | 60-180 secs. |
| Average ramp up rate (Liquidus Temp (T_L) to peak) | | 3°C/sec. Max |
| $T_{s(max)}$ to T_L - Ramp-up Rate | | 3°C/sec. Max |
| Reflow | -Temperature(T_L)(Liquidus) | +217°C |
| | -Temperature(t_L) | 60-150 secs. |
| Peak Temp (T_p) | | +260(+0/-5)°C |
| Time within 5°C of actual Peak Temp (t_p) | | 20-40secs |
| Ramp-down Rate | | 6°C/sec. Max |
| Time 25°C to Peak Temp (T_p) | | 8 min. Max |
| Do not exceed | | +260°C |

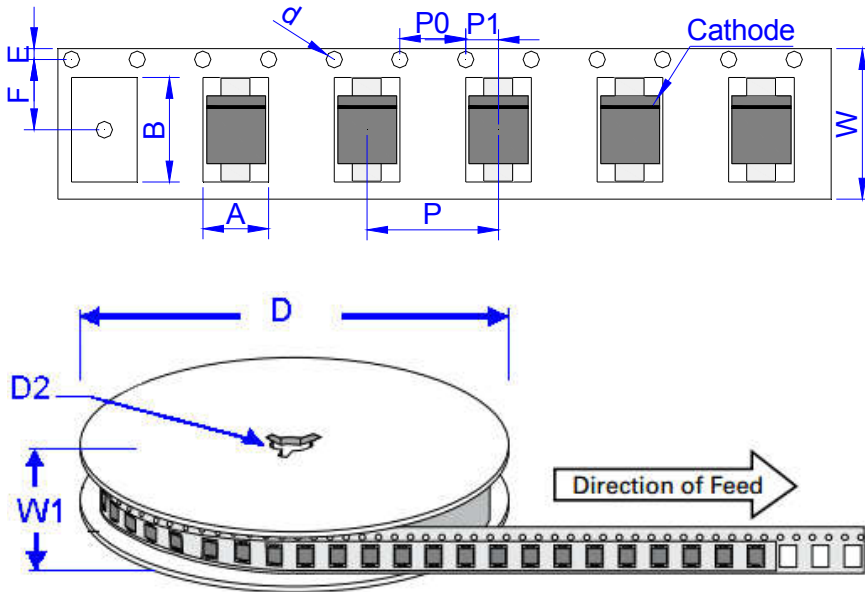


PACKAGE MECHANICAL DATA



| Ref. | Dimensions | | | |
|------|-------------|-------|--------|-------|
| | Millimeters | | Inches | |
| | Min. | Max. | Min. | Max. |
| A | 4.25 | 4.75 | 0.167 | 0.187 |
| B | 3.30 | 3.94 | 0.130 | 0.155 |
| C | 1.85 | 2.21 | 0.073 | 0.087 |
| D | 0.76 | 1.52 | 0.030 | 0.060 |
| E | 5.08 | 5.59 | 0.200 | 0.220 |
| F | 0.051 | 0.203 | 0.002 | 0.008 |
| G | 0.15 | 0.31 | 0.006 | 0.012 |
| H | 2.11 | 2.44 | 0.083 | 0.096 |
| J | 6.80 | | 0.270 | |
| K | | 2.60 | | 0.100 |
| L | 2.40 | | 0.090 | |

TAPE AND REEL SPECIFICATION-SMB



| Ref. | Dimensions | |
|------|-------------|---------------|
| | Millimeters | Inches |
| A | 3.76 ± 0.2 | 0.144 ± 0.012 |
| B | 5.69 ± 0.2 | 0.244 ± 0.012 |
| d | 1.5 ± 0.25 | 0.059 ± 0.004 |
| D | 330.0 | 13.0 |
| D2 | 13 ± 1 | 0.512 ± 0.039 |
| E | 1.75 ± 0.2 | 0.059 ± 0.008 |
| F | 5.5 ± 0.1 | 0.222 ± 0.008 |
| P | 8.0 ± 0.2 | 0.315 ± 0.008 |
| P0 | 4.0 ± 0.2 | 0.157 ± 0.008 |
| P1 | 2.0 ± 0.2 | 0.079 ± 0.008 |
| W | 12.0 ± 0.3 | 0.472 ± 0.008 |
| W1 | 16.8 ± 2.0 | 0.661 ± 0.079 |

| OUTLINE | REEL (PCS) | PER CARTON (PCS) | REEL DIAMETERS (mm) |
|---------|------------|------------------|---------------------|
| TAPING | 3,000 | | 330 |

单击下面可查看定价，库存，交付和生命周期等信息

[>>Leiditech\(雷卯电子\)](#)