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ISO

9001:2015 CERTIFIED



FEATURES

- Shielded construction
- Soft saturation
- High efficiency
- Designed for switching frequencies between 100KHz-5MHz
- Automotive option available upon request

ELECTRICAL SPECIFICATIONS @ 25°C

| PART NUMBER* | INDUCTANCE (uH) | TOLERANCE (%) | IRMS (A) | ISAT (A) | DC RESISTANCE (mΩ) | | TYPE | |
|------------------|--------------------|------------------|-------------|-------------|-----------------------|------|------------|--|
| | (un) | | | | TYP | MAX | | |
| AMELA2012S-R22MT | 0.22 | 20 | 10.0 | 8.5 | 11 | 13 | Lead Frame | |
| AMELA2012S-R33MT | 0.33 | 20 | 5.8 | 7.0 | 15 | 16.5 | Lead Frame | |
| AMELA2012S-R47MT | 0.47 | 20 | 4.8 | 6.0 | 20 | 25 | Lead Frame | |
| AMELA2012S-R68MT | 0.68 | 20 | 3.9 | 4.6 | 30 | 34 | Lead Frame | |
| AMELA2012S-1ROMT | 1.0 | 20 | 3.7 | 4.3 | 38 | 45 | Lead Frame | |
| AMELA2012S-1R5MT | 1.5 | 20 | 2.9 | 3.0 | 53 | 60 | Lead Frame | |
| AMELA2012S-2R2MT | 2.2 | 20 | 2.4 | 2.7 | 78 | 90 | Lead Frame | |

^{*} Please refer to Part Identification section

Test Conditions

Inductance: 1 MHz, 1 V, 0 Adc Humidity Range: 65% RH

Temperature Rise Current: Current measured at Δ T of 40°C Saturation Current: Current measured at Δ L of 30%

SPECIFICATIONS

Operating Temperature:

-55°C to +125°C with (40°C rise) Irms current.

Maximum Part Temperature: +125°C **Components Storage Temperature:**

-55°C to +125°C

GENERAL

Tape and Reel Packaging Temperature: -20°C to +65°C

MSL: Level 1

MATERIALS

Metal Alloy Core: Wire: Copper Terminal: Tin Plating Black Ink:

PART BUILDER

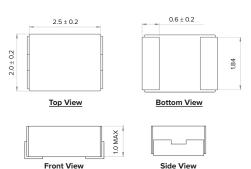


1. Tolerance: M = 20%

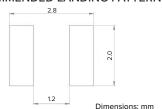
2. Packaging: B = Bulk

T = Tape and Reel (3,000pcs/reel)

PRODUCT DIMENSIONS



RECOMMENDED LANDING PATTERN

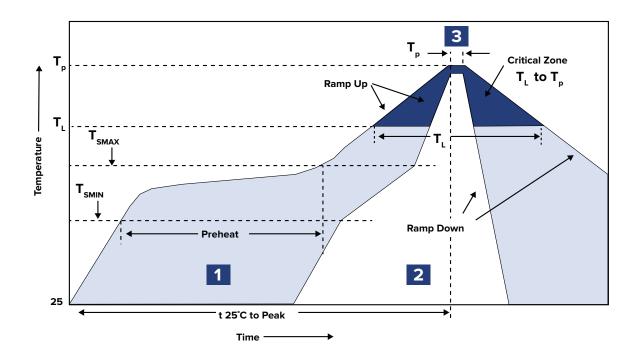




^{*}Refer to Electrical Specification table



RECOMMENDED REFLOW PROFILE



| ZONE | DESCRIPTION | TEMPERATURE | TIMES |
|------|-------------|--|---------------|
| 1 | Preheat | T _{smin} ~ T _{smax} 150°C ~ 180°C | 60 ~ 120 sec. |
| 2 | Reflow | T _∟ 230°C | 30 ~ 40 sec. |
| 3 | Peak Heat | T _P 250°C+0/-5°C | 10 sec. MAX |



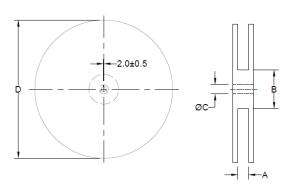


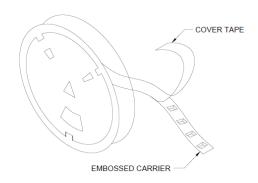
PACKAGING

Tape and Reel: 3,000 Units per Carton: 144,000

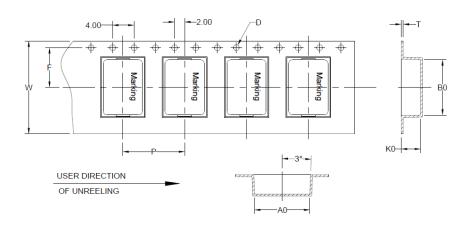
T&R per Carton: 48
Weight per Carton: 6.3 kg
Weight per Unit: 0.06 g

Carton Dimensions: 450 x 380 x 210 mm





| TYPE | А | В | С | D |
|-----------|-----------|------------|------------|-----------|
| 7" x 8 mm | 9.7 ± 0.5 | 50.0 ± 0.5 | 13.0 ± 0.1 | 183 ± 3.0 |



| E | 30 | A_{o} | K _o | Р | W | F | T | D |
|------|-------|---------------|----------------|---------------|---------------|---------------|-----------------|-----|
| 2.85 | ± 0.1 | 2.4 ± 0.1 | 1.35 ± 0.05 | 4.0 ± 0.1 | 8.0 ± 0.1 | 3.5 ± 0.1 | 0.25 ± 0.03 | 1.5 |

Dimensions: mm

This product is commercial off-the-shelf (COTS) and not specifically designed for automotive, military, aviation, aerospace, implantable, life-dependent medical or safety applications. This product is not recommended for use in any application requiring high reliability in which component failure could result in loss of life and/or property damage without prior written approval from Abracon. Specifications are subject to change without notice. Contact Abracon for more information.

