

FEATURES

- AEC-Q200 Qualified
- Shielded construction
- Soft saturation
- Low DCR per cubic mm
- Designed for switching frequencies between 100KHz-2MHz



ELECTRICAL SPECIFICATIONS @ 25°C

PART NUMBER*	INDUCTANCE (uH)	TOLERANCE (%)	IRMS (A)	ISAT (A)	DC RESISTANCE (mΩ)		TYPE
					TYP	MAX	
AMPLA4020Q-R10NT	0.10	30	12.0	35	3.2	4	Lead Frame
AMPLA4020Q-R18NT	0.18	30	13.5	28	4.6	5.4	Lead Frame
AMPLA4020Q-R22NT	0.22	30	13.0	24	6.6	7.3	Lead Frame
AMPLA4020Q-R33MT	0.33	20	10.0	18	7.8	8.6	Lead Frame
AMPLA4020Q-R36MT	0.36	20	9.0	15	8.7	12	Lead Frame
AMPLA4020Q-R47MT	0.47	20	8.0	12	11.2	14	Lead Frame
AMPLA4020Q-R56MT	0.56	20	7.3	10	13.5	16	Lead Frame
AMPLA4020Q-R68MT	0.68	20	7.0	10	16	19	Lead Frame
AMPLA4020Q-1R0MT	1.0	20	5.0	8.5	22	27	Lead Frame
AMPLA4020Q-1R2MT	1.2	20	4.8	7.8	25	30	Lead Frame
AMPLA4020Q-1R5MT	1.5	20	4.5	7.0	34.8	42	Lead Frame
AMPLA4020Q-2R2MT	2.2	20	4.0	6.0	51	61	Lead Frame
AMPLA4020Q-3R3MT	3.3	20	3.5	4.0	69	76	Lead Frame
AMPLA4020Q-4R7MT	4.7	20	2.6	3.5	95	105	Lead Frame
AMPLA4020Q-5R6MT	5.6	20	2.2	3.0	112	125	Lead Frame
AMPLA4020Q-6R8MT	6.8	20	2.1	2.8	150	172	Lead Frame
AMPLA4020Q-8R2MT	8.2	20	2.0	2.5	158	180	Lead Frame
AMPLA4020Q-100MT	10.0	20	1.8	2.3	215	243	Lead Frame
AMPLA4020Q-150MT	15.0	20	1.5	1.9	325	374	Lead Frame
AMPLA4020Q-220MT	22.0	20	1.2	1.4	470	500	Lead Frame

* Please refer to Part Identification section

Test Conditions

Inductance: 100 kHz, 1 V, 0 Adc

Humidity Range: 85 ± 2% RH

Temperature Rise Current: Current measured at Δ T of 40°C

Saturation Current: Current measured at Δ L of 30%

GENERAL 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

Tape and Reel Packaging

Temperature: -55°C to +80°C

MSL: Level 1

MATERIALS

Core: Carbonyl Powder

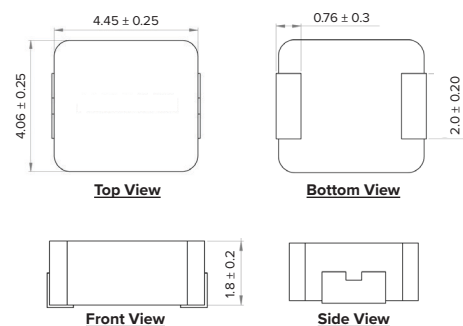
Wire: Copper

Terminal: Tin Plating

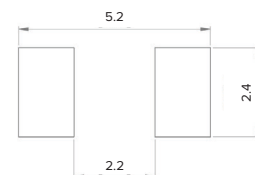
Ink: Black

Paint: Gray

PRODUCT DIMENSIONS



RECOMMENDED LANDING PATTERN



PART BUILDER

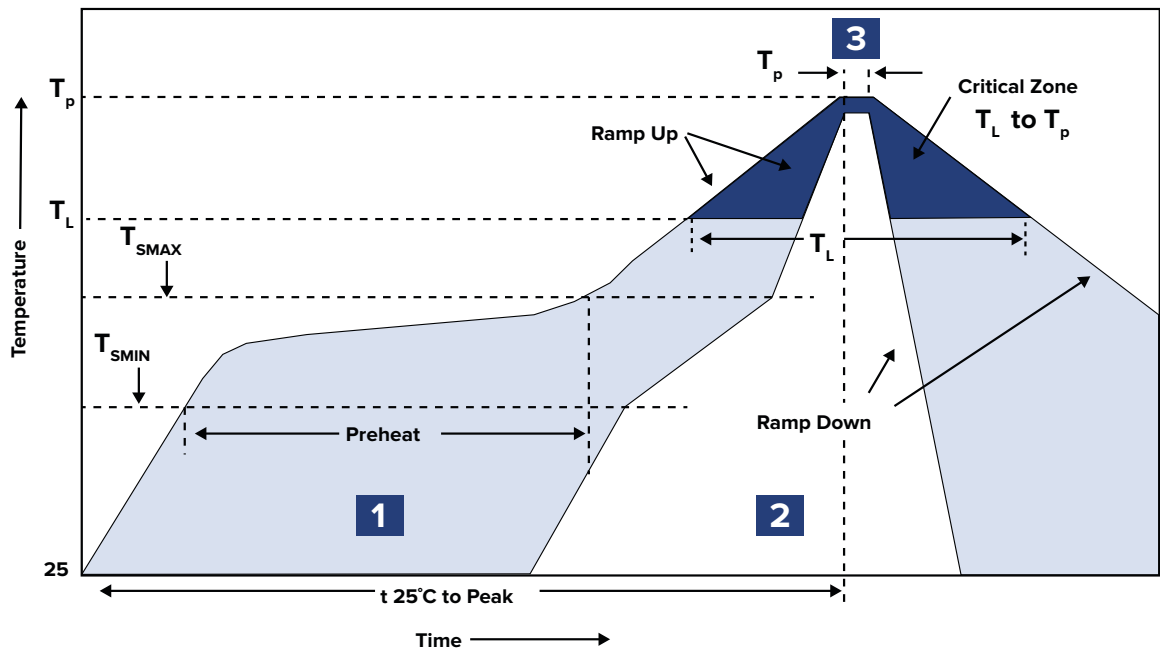


1. Tolerance: M = 20%
N = 30%

2. Packaging: B = Bulk
T = Tape and Reel (3,000pcs/reel)

*Refer to Electrical Specification table

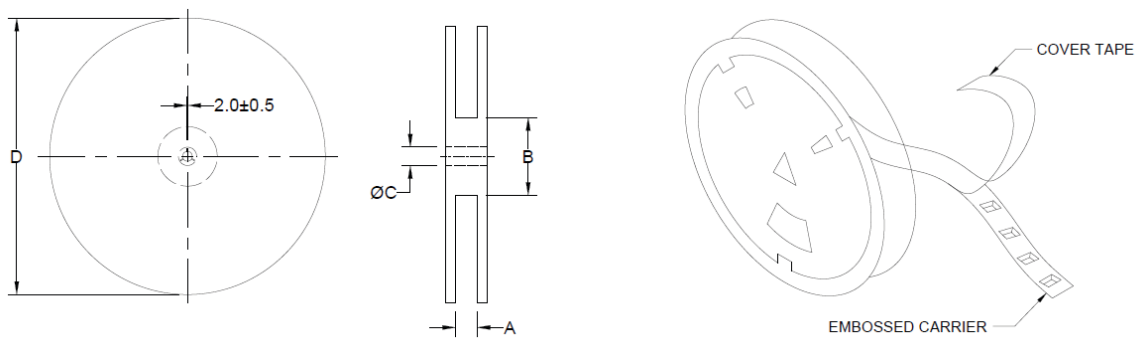
RECOMMENDED REFLOW PROFILE



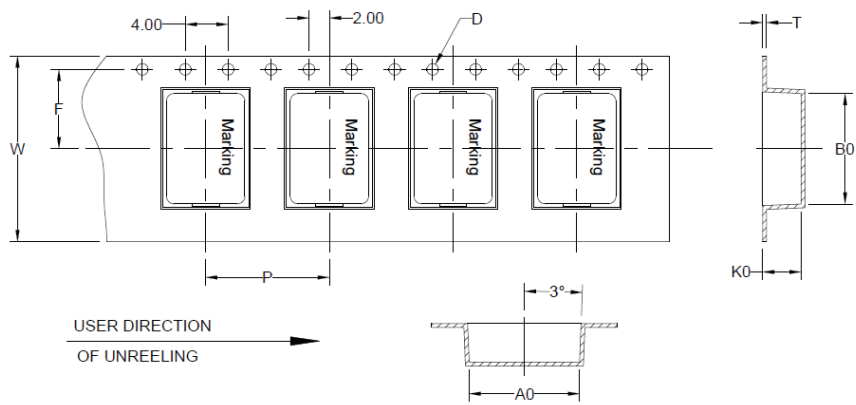
ZONE	DESCRIPTION	TEMPERATURE	TIMES
1	Preheat	$T_{smin} \sim T_{smax}$ 150°C ~ 200°C	60 ~ 180 sec.
2	Reflow	T_L 217°C	60 ~ 150 sec.
3	Peak Heat	T_p 260°C	10 sec. MAX

PACKAGING

Tape and Reel: 3,000
Units per Carton: 24,000
T&R per Carton: 8
Weight per Carton: 9.72 kg
Weight per Unit: 0.175 g
Carton Dimensions: 410 x 325 x 415 mm



TYPE	A	B	C	D
13" x 12 mm	12.4 +2/-0	100.0 ± 2.0	13.0 +0.5/-0.2	330.0



B ₀	A ₀	K ₀	P	W	F	T	D
5.0 ± 0.1	4.4 ± 0.1	2.3 ± 0.1	8.0 ± 0.1	12.0 ± 0.3	5.5 ± 0.1	0.35 ± 0.05	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.