



**THE DATASHEET OF
ASDMB-125.000MHZ-LY-T**



ASDMB

Request Samples



Check Inventory



ESD Sensitive



2.5 x 2.0 x 0.85 mm

RoHS/RoHS II Compliant

MSL Level = 1

Features

- Low Power Consumption <10mA
- Exceptional Stability +/- 10ppm Over Temp. at -40 to +105°C
- Compact QFN Plastic Packaging

Applications

- CCD Clock for VTR Camera
- Equipment Connected to PCs
- Low Profile Equipment
- Computers and Peripherals
- Portable Electronics
- Consumer Electronics
- Vibrant, Shock-Prone & Humid Environments for Industrial Equipment
- Demanding Military & Automotive Electronics

Common Key Electrical Specifications

| Parameters | Min. | Typ. | Max. | Units | Notes |
|---------------------------------|--------------------------------------------|------|---------------|-------|-------------|
| Frequency Range: | 1.0 | | 150 | MHz | |
| Operating Temperature: | 0 | | +70 | °C | See options |
| Storage Temperature: | -55 | | +150 | °C | |
| Overall Frequency Stability*: | -50 | | +50 | ppm | See options |
| Supply Voltage (Vdd): | +1.8 ~ +3.3 | | | V | |
| Output Load: | | | 15, 25, or 40 | pF | See options |
| | 10 | | | kΩ | |
| Symmetry: | 45 | | 55 | % | @1/2Vdd |
| Startup Time: | | 1.5 | 3.0 | ms | |
| Disable Time: | | 20 | 100 | ns | |
| Disable Stand-by Current: | | | 15 | uA | |
| Tri-state Function (Stand-by) : | "1" (VIH≥0.75*Vdd) or Open: Oscillation | | | | |
| | "0" (VIL<0.25*Vdd) : Hi Z | | | V | |
| Aging: | -5.0 | | +5.0 | ppm | First year |



5101 Hidden Creek Ln Spicewood TX 78669
 Phone: 512-371-6159 | Fax: 512-351-8858
 For terms and conditions of sales, please visit:
www.abracon.com

REVISED: 09-21-23

ABRACON IS
 ISO9001-2015
 CERTIFIED

ASDMB

Request Samples



Check Inventory



ESD Sensitive



2.5 x 2.0 x 0.85 mm

RoHS/RoHS II Compliant

MSL Level = 1

Key Electrical Specifications - Vdd = 1.8V

| Parameters | | Min. | Typ. | Max. | Units | Notes |
|---------------------------|---------------------|---------|------|---------|-------|-------------------------------------------------|
| Supply Current (no load): | 1.0 to 39.9999MHz | | 5 | 15 | mA | CL=0pF RL=∞ T=25°C (Standard CL: 15pF) |
| | 40.0 to 79.9999MHz | | 6 | 15 | mA | |
| | 80.0 to 124.9999MHz | | 7 | 15 | mA | |
| | 125.0 to 150MHz | | 8 | 15 | mA | |
| | 1.0 to 39.9999MHz | | 6 | 15 | mA | CL=0pF RL=∞ T=25°C (CL option: 25pF) |
| | 40.0 to 79.9999MHz | | 7 | 15 | mA | |
| | 80.0 to 124.9999MHz | | 8 | 15 | mA | |
| | 125.0 to 150MHz | | 9 | 15 | mA | |
| | 1.0 to 39.9999MHz | | 7 | 15 | mA | CL=0pF RL=∞ T=25°C (CL option: 40pF) |
| | 40.0 to 79.9999MHz | | 8 | 15 | mA | |
| | 80.0 to 124.9999MHz | | 9 | 15 | mA | |
| | 125.0 to 150MHz | | 10 | 15 | mA | |
| Output Voltage: | V _{OH} | 0.8*Vdd | | | V | CL=15, 25, 40pF |
| | V _{OL} | | | 0.2*Vdd | V | |
| Rise Time: Fall Time: | Tr | | 1.8 | 3.0 | ns | CL=15pF; T=25°C 20%/80%*VDD |
| | Tf | | 1.0 | 3.0 | ns | |
| | Tr | | 1.5 | 3.0 | ns | CL=25pF; T=25°C 20%/80%*VDD |
| | Tf | | 1.2 | 3.0 | ns | |
| | Tr | | 1.4 | 3.0 | ns | CL=40pF; T=25°C 20%/80%*VDD |
| | Tf | | 1.1 | 3.0 | ns | |
| Cycle to Cycle Jitter: | | | 60 | | ps | F=100MHz |
| Period Jitter RMS: | | | 10 | | ps | F=100MHz |

INDUSTRIAL GRADE PLASTIC PACKAGE ULTRA MINIATURE PURE SILICON™ SMD CLOCK OSCILLATORS

ASDMB

Request Samples



Check Inventory



ESD Sensitive



2.5 x 2.0 x 0.85 mm

RoHS/RoHS II Compliant

MSL Level = 1

Key Electrical Specifications - Vdd = 2.5V

| Parameters | | Min. | Typ. | Max. | Units | Notes |
|------------------------------|---------------------|---------|------|---------|-------|-------------------------------------------------|
| Supply Current (no load): | 1.0 to 39.9999MHz | | 6 | 15 | mA | CL=0pF RL=∞ T=25°C (Standard CL: 15pF) |
| | 40.0 to 79.9999MHz | | 7 | 15 | mA | |
| | 80.0 to 124.9999MHz | | 8 | 15 | mA | |
| | 125.0 to 150MHz | | 9 | 15 | mA | |
| | 1.0 to 39.9999MHz | | 7 | 15 | mA | CL=0pF RL=∞ T=25°C (CL option: 25pF) |
| | 40.0 to 79.9999MHz | | 8 | 15 | mA | |
| | 80.0 to 124.9999MHz | | 9 | 15 | mA | |
| | 125.0 to 150MHz | | 10 | 15 | mA | |
| | 1.0 to 39.9999MHz | | 8 | 16 | mA | CL=0pF RL=∞ T=25°C (CL option: 40pF) |
| | 40.0 to 79.9999MHz | | 9 | 16 | mA | |
| | 80.0 to 124.9999MHz | | 10 | 16 | mA | |
| | 125.0 to 150MHz | | 11 | 16 | mA | |
| Output Voltage: | V _{OH} | 0.8*Vdd | | | V | CL=15, 25, 40pF |
| | V _{OL} | | | 0.2*Vdd | V | |
| | V _{OH} | 0.9*Vdd | | | V | CL=40pF |
| | V _{OL} | | | 0.1*Vdd | V | |
| Rise Time: Fall Time: | Tr | | 1.0 | 2.0 | ns | CL=15pF; T=25°C 20%/80%*VDD |
| | Tf | | 0.9 | 2.0 | ns | |
| | Tr | | 1.1 | 2.0 | ns | CL=25pF; T=25°C 20%/80%*VDD |
| | Tf | | 0.9 | 2.0 | ns | |
| | Tr | | 1.0 | 2.0 | ns | CL=40pF; T=25°C 20%/80%*VDD |
| | Tf | | 0.9 | 2.0 | ns | |
| Cycle to Cycle Jitter: | | | 50 | | ps | F=100MHz |
| Period Jitter RMS: | | | 5 | | ps | F=100MHz |



5101 Hidden Creek Ln Spicewood TX 78669
 Phone: 512-371-6159 | Fax: 512-351-8858
 For terms and conditions of sales, please visit:
www.abracon.com

REVISED: 09-21-23

ABRACON IS
 ISO9001-2015
 CERTIFIED

INDUSTRIAL GRADE PLASTIC PACKAGE ULTRA MINIATURE PURE SILICON™ SMD CLOCK OSCILLATORS

ASDMB

Request Samples



Check Inventory



ESD Sensitive



2.5 x 2.0 x 0.85 mm

RoHS/RoHS II Compliant

MSL Level = 1

Key Electrical Specifications - Vdd = 3.3V

| Parameters | Min. | Typ. | Max. | Units | Notes | |
|------------------------------|---------------------|---------|------|---------|-------|-------------------------------------------------|
| Supply Current (no load): | 1.0 to 39.9999MHz | | 7 | 15 | mA | CL=0pF RL=∞ T=25°C (Standard CL: 15pF) |
| | 40.0 to 79.9999MHz | | 8 | 15 | mA | |
| | 80.0 to 124.9999MHz | | 9 | 15 | mA | |
| | 125.0 to 150MHz | | 10 | 15 | mA | |
| | 1.0 to 39.9999MHz | | 8 | 16 | mA | CL=0pF RL=∞ T=25°C (CL option: 25pF) |
| | 40.0 to 79.9999MHz | | 9 | 16 | mA | |
| | 80.0 to 124.9999MHz | | 10 | 16 | mA | |
| | 125.0 to 150MHz | | 11 | 16 | mA | |
| | 1.0 to 39.9999MHz | | 8 | 16 | mA | CL=0pF RL=∞ T=25°C (CL option: 40pF) |
| | 40.0 to 79.9999MHz | | 9 | 16 | mA | |
| | 80.0 to 124.9999MHz | | 10 | 16 | mA | |
| | 125.0 to 150MHz | | 11 | 16 | mA | |
| Output Voltage: | V _{OH} | 0.8*Vdd | | | V | CL=15pF |
| | V _{OL} | | | 0.2*Vdd | V | |
| | V _{OH} | 0.9*Vdd | | | V | CL=25, 40pF |
| | V _{OL} | | | 0.1*Vdd | V | |
| Rise Time: Fall Time: | Tr | | 1.0 | 2.0 | ns | CL=15pF; T=25°C 20%/80%*VDD |
| | Tf | | 0.9 | 2.0 | ns | |
| | Tr | | 1.0 | 2.0 | ns | CL=25pF; T=25°C 20%/80%*VDD |
| | Tf | | 0.9 | 2.0 | ns | |
| | Tr | | 0.8 | 2.0 | ns | CL=40pF; T=25°C 20%/80%*VDD |
| | Tf | | 0.8 | 2.0 | ns | |
| Cycle to Cycle Jitter: | | | 50 | | ps | F=100MHz |
| Period Jitter RMS: | | | 5 | | ps | F=100MHz |



5101 Hidden Creek Ln Spicewood TX 78669
 Phone: 512-371-6159 | Fax: 512-351-8858
 For terms and conditions of sales, please visit:
www.abracon.com

REVISED: 09-21-23

ABRACON IS
 ISO9001-2015
 CERTIFIED

ASDMB

Request Samples



Check Inventory



ESD Sensitive



2.5 x 2.0 x 0.85 mm
 RoHS/RoHS II Compliant
 MSL Level = 1

Absolute Maximum Ratings

| Item | Min. | Max. | Units | Condition |
|-----------------|------|---------|-------|-----------|
| Supply Voltage | -0.3 | +4.0 | V | |
| Input Voltage | -0.3 | Vdd+0.3 | V | |
| Junction Temp. | | +150 | °C | |
| Storage Temp. | -55 | +150 | °C | |
| Soldering Temp. | | +260 | °C | 40sec max |
| ESD | | | V | |
| HBM | | 4,000 | | |
| MM | | 200 | | |
| CDM | | 1,500 | | |

ASDMB

Request Samples



Check Inventory



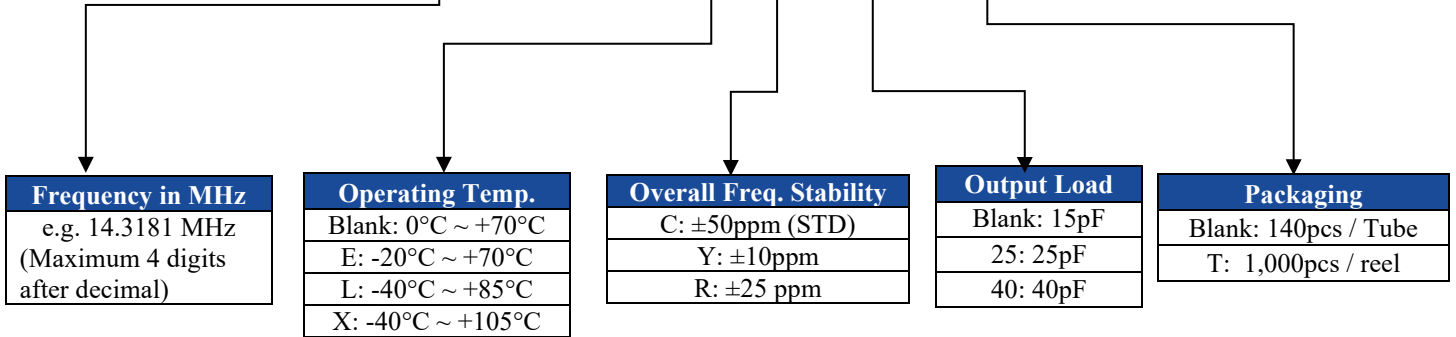
ESD Sensitive



2.5 x 2.0 x 0.85 mm
 RoHS/RoHS II Compliant
 MSL Level = 1

Options and Part Identification

ASDMB - [] MHz - [] [] - [] - []



ASDMB

Request Samples



Check Inventory

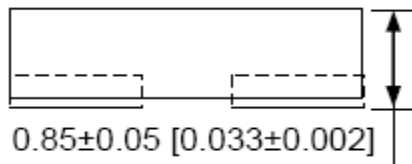
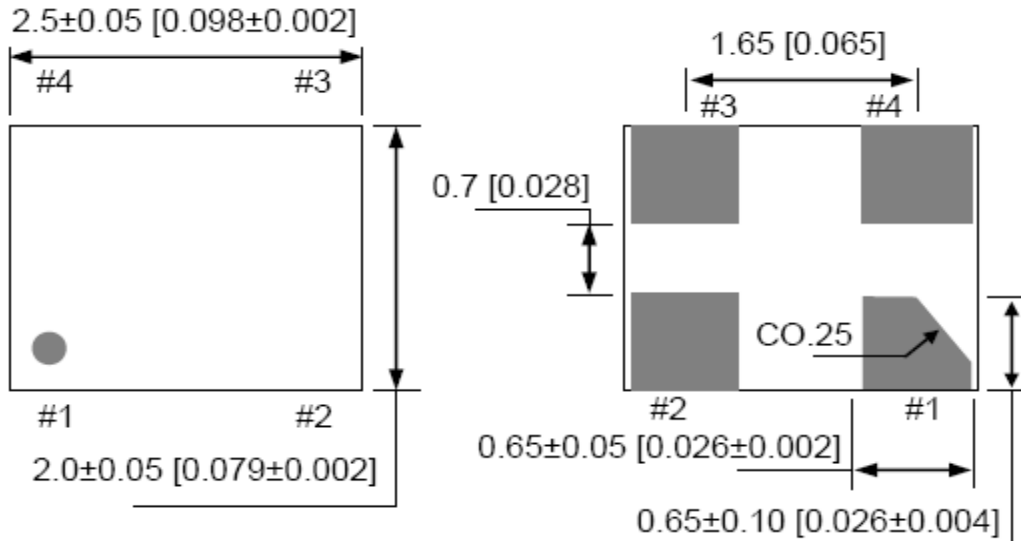


ESD Sensitive



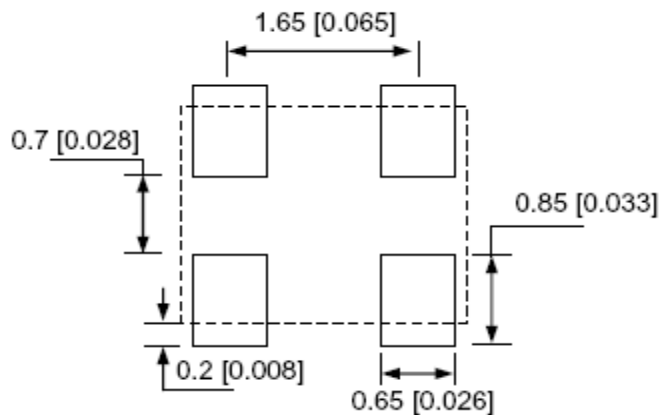
2.5 x 2.0 x 0.85 mm
RoHS/RoHS II Compliant
MSL Level = 1

Mechanical Dimensions



| No | Pin Terminal |
|----|--------------|
| 1 | Standby |
| 2 | GND |
| 3 | Output |
| 4 | VDD |

Recommended Land Pattern



Note: Recommend using an approximately 0.01uF bypass capacitor between PIN 2 and 4.

Dimensions: mm(inches)



5101 Hidden Creek Ln Spicewood TX 78669
Phone: 512-371-6159 | Fax: 512-351-8858
For terms and conditions of sales, please visit:
www.abracon.com

REVISED: 09-21-23

ABRACON IS
ISO9001-2015
CERTIFIED

ASDMB

Request Samples

Check Inventory



2.5 x 2.0 x 0.85 mm
RoHS/RoHS II Compliant
MSL Level = 1

Reflow Profile [JEDEC J-STD-020]

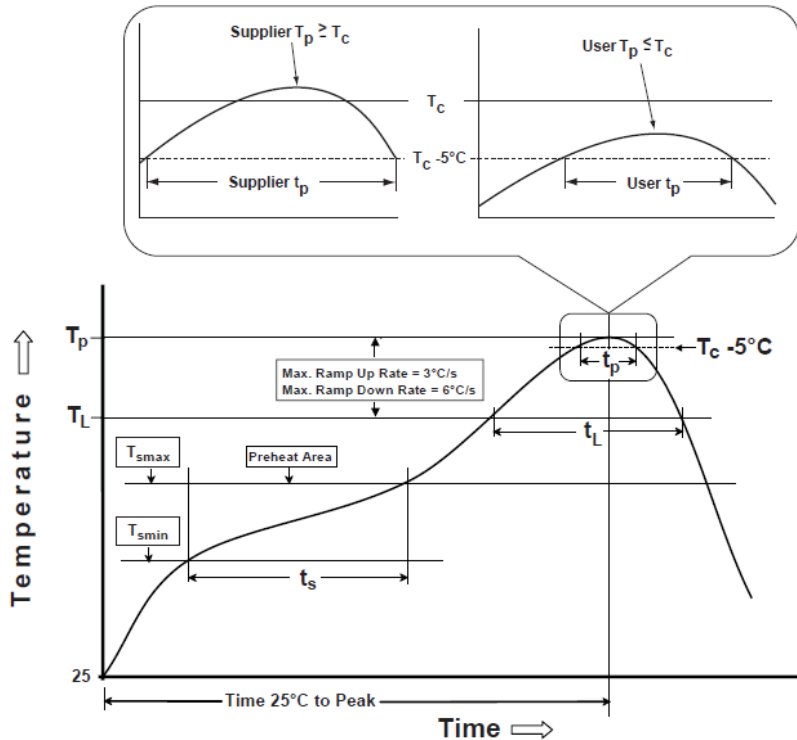


Table 1

| SnPb Eutectic Process Classification Temperatures (T_c) | | |
|-------------------------------------------------------------|-----------------------------|-----------------------------|
| Package Thickness | Volume mm ³ <350 | Volume mm ³ ≥350 |
| <2.5 mm | 235 °C | 220 °C |
| ≥2.5 mm | 220 °C | 220 °C |

Table 2

| Pb-Free Process Classification Temperatures (T_c) | | | |
|-------------------------------------------------------|-----------------------------|---------------------------------|------------------------------|
| Package Thickness | Volume mm ³ <350 | Volume mm ³ 350-2000 | Volume mm ³ >2000 |
| <1.6 mm | 260 °C | 260 °C | 260 °C |
| 1.6 mm - 2.5 mm | 260 °C | 250 °C | 245 °C |
| >2.5 mm | 250 °C | 245 °C | 245 °C |

| Profile Feature | Sn-Pb Eutectic Assembly | Pb-Free Assembly |
|-----------------------------------------------------------------------------------|-------------------------|------------------|
| Preheat / soak | | |
| Temperature minimum (T_{smin}) | 100°C | 150°C |
| Temperature maximum (T_{smax}) | 150°C | 200°C |
| Time (T_{smin} to T_{smax}) (t_s) | 60 - 120 sec. | 60 - 120 sec. |
| Average ramp-up rate (T_{smax} to T_p) | 3°C/sec. max | 3°C/sec. max |
| Liquidous temperature (T_L) | 183°C | 217°C |
| Time at liquidous (t_L) | 60 - 150 sec. | 60 - 150 sec. |
| Peak package body temperature (T_p)* | see Table 1 | see Table 2 |
| Time (t_p)** within 5°C of the specified classification temperature (T_C) | 20 sec. | 30 sec. |
| Ramp-down rate (T_p to T_{smax}) | 6°C/sec. max | 6°C/sec. max |
| Time 25°C to peak temperature | 6 min. max | 8 min. max |
| Reflow cycles | 2 max | 2 max |

*Tolerance for peak profile temperature (T_p) is defined as a supplier minimum and a user maximum.

**Tolerance for time at peak profile temperature (t_p) is defined as supplier minimum and a user maximum.



5101 Hidden Creek Ln Spicewood TX 78669
Phone: 512-371-6159 | Fax: 512-351-8858
For terms and conditions of sales, please visit:
www.abracon.com

REVISED: 09-21-23

ABRACON IS
ISO9001-2015
CERTIFIED

INDUSTRIAL GRADE PLASTIC PACKAGE ULTRA MINIATURE PURE SILICON™ SMD CLOCK OSCILLATORS

ASDDB

Request Samples



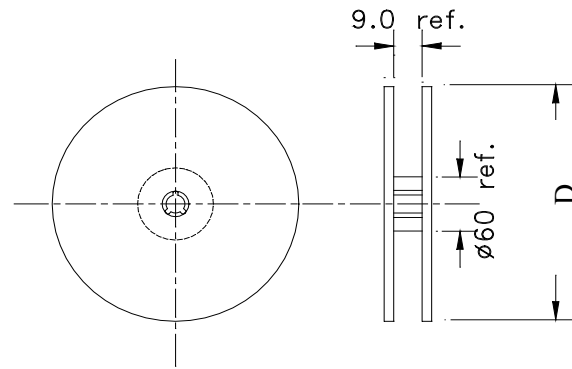
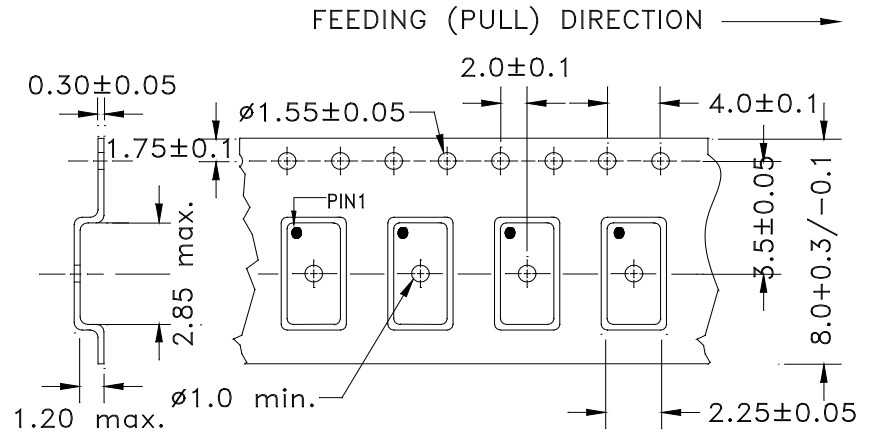
Check Inventory



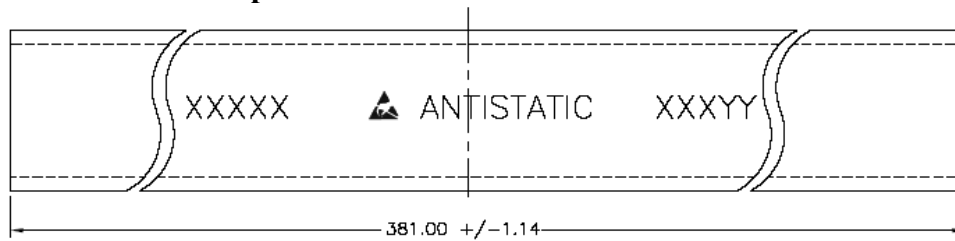
2.5 x 2.0 x 0.85 mm
RoHS/RoHS II Compliant
MSL Level = 1

Packaging

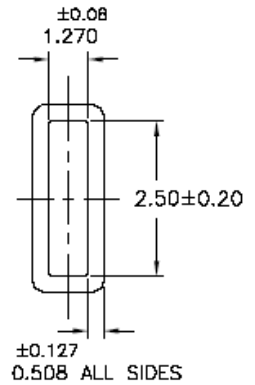
T= 1,000pcs/reel (D=180mm)



Tube: 140 pcs/tube



Unit orientation in tube:



Dimensions: mm

ATTENTION: Abracon LLC's products are COTS – Commercial-Off-The-Shelf products; suitable for Commercial, Industrial and, where designated, Automotive Applications. Abracon's products are not specifically designed for Military, Aviation, Aerospace, Life-dependent Medical applications or any application requiring high reliability where component failure could result in loss of life and/or property. For applications requiring high reliability and/or presenting an extreme operating environment, written consent and authorization from Abracon LLC is required. Please contact Abracon LLC for more information.





5101 Hidden Creek Ln Spicewood TX 78669
Phone: 512-371-6159 | Fax: 512-351-8858
For terms and conditions of sales, please visit:
www.abracon.com

REVISED: 09-21-23

ABRACON IS
ISO9001-2015
CERTIFIED

Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

-  [View ASDMB-125.000MHZ-LY-T on WIN SOURCE](#)
-  [Abracon LLC Information](#)

Optimize Your Supply Chain with WIN SOURCE Solutions

-  Global Sourcing Solution
-  Obsolete Management
-  Cost Control Management
-  Shortage Management
-  Alternative Solution
-  Excess Inventory Management