

FEATURES

- HIGH RELIABILITY FOR LOW COST
- AVAILABLE AS TCXO AND VCTCXO
- TEMPERATURE STABILITY OF +1 PPM AVAILABLE
- EXCELLENT PHASE NOISE PERFORMANCE
- LOW POWER CONSUMPTION
- EXTENDED TEMPERATURE RANGE TO -40/+85°C AVAILABLE

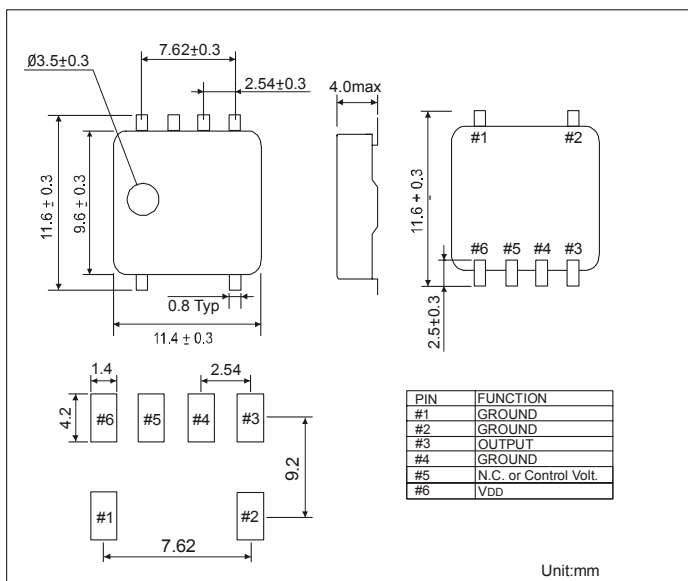
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|-----------------------------|------------------------------|---------------------------------|---|
| SERIES | | M4317 | |
| PACKAGE | | SMD-PACKAGE 11.4 x 9.6 x 4.0 mm | |
| FREQUENCY RANGE | HCMOS / TTL | | 1.25 ~ 27.0 MHz |
| | CLIPPED SINE WAVE | | 10.0 ~ 27.0 MHz |
| FREQUENCY STABILITY | VS. TEMPERATURE | | +1 ~ +5 ppm |
| | VS. SUPPLY VOLTAGE | | +0.5 ppm max. / 3.3VDC +5% |
| | VS. LOAD | | +0.2 ppm max. / 10 pF ~ 20 pF |
| | VS. AGING | | +1 ppm max. per year |
| OPERATING TEMPERATURE RANGE | | -0/+50°C ~ -40/+85°C | |
| STORAGE TEMPERATURE RANGE | | -40/+85°C | |
| INPUT | VOLTAGE | | +3.3 VDC +-5% |
| | CURRENT | | 20 mA max. for HCMOS / TTL 3 mA max. for CLIPPED SINE WAVE |
| OUTPUT | SYMMETRY | STANDARD | 40/60% for HCMOS / TTL |
| | | OPTION | 45/55% for HCMOS / TTL |
| | SIGNALS | | HCMOS / TTL CLIPPED SINE WAVE |
| | RISE AND FALL TIME FOR HCMOS | | 10 ns max. (10% VDD TO 90% VDD) |
| | RISE AND FALL TIME FOR TTL | | 10 ns max. (0.4 TO 2.4 VOLT) |
| | "0" LEVEL | HCMOS | 10% VDD max. |
| | "1" LEVEL | | 90% VDD min. |
| | "0" LEVEL | TTL | 0.4 VDC max. |
| | "1" LEVEL | | 2.4 VDC min. |
| | CLIPPED SINE WAVE | | 0.7 V peak to peak min. |
| LOAD | HCMOS | | 15 pF |
| | TTL | | 2 TTL |
| | CLIPPED SINE WAVE | | 10 kΩ / 10 pF |
| FREQUENCY ADJUSTMENT | STANDARD | | +3 ppm min. per internal trimmer |
| | OPTION | | +5 ppm min. by external control voltage |
| EXTERNAL CONTROL VOLTAGE | | 1.65 VDC +-1.35 VDC | |
| PHASE NOISE (typical) | 10 Hz offset from carrier | | -80 dBc/Hz |
| | 100 Hz offset from carrier | | -105 dBc/Hz |
| | 1 kHz offset from carrier | | -130 dBc/Hz |
| | 10 kHz offset from carrier | | -145 dBc/Hz |
| | 100 kHz offset from carrier | | -150 dBc/Hz |
| PIN CONNECTION | PIN 1 | | GROUND |
| | PIN 2 | | GROUND |
| | PIN 3 | | OUTPUT |
| | PIN 4 | | GROUND |
| | PIN 5 | | NOT CONNECT OR CONTROL VOLTAGE |
| | PIN 6 | | SUPPLY VOLTAGE |

OTHER PARAMETERS ARE AVAILABLE ON REQUEST / CREATE HERE YOUR SPECIFICATION

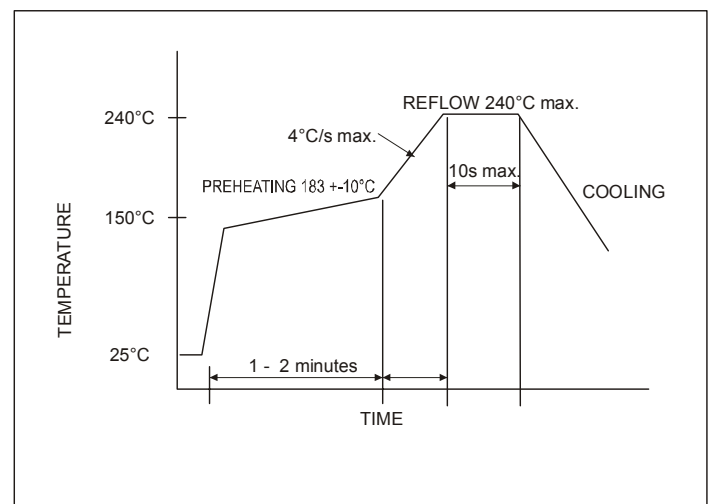
PART NUMBERING GUIDE

| | |
|---------------------------|--|
| EXAMPLE | M4317-S-J-10-S-V-27.000MHz |
| SERIES | M4317 |
| OUTPUT SIGNAL | S = CLIPPED SINE WAVE |
| | T = TTL |
| | H = HCMOS |
| TEMPERATURE RANGE | J = 0/+50°C |
| | N = -10/+60°C |
| | X = 0/+70°C |
| | M = -20/+70°C |
| | K = -30/+75°C |
| | W = -40/+85°C |
| STABILITY VS. TEMPERATURE | 10 = +/-1.0 ppm |
| | 15 = +/-1.5 ppm |
| | 20 = +/-2.0 ppm |
| | 25 = +/-2.5 ppm |
| | 50 = +/-5.0 ppm |
| | X = OTHER VALUE - PLEASE INDICATE YOUR REQUIRED VALUE |
| SYMMETRY FOR HCMOS / TTL | BLANK = 40/60% |
| | S = 45/55% |
| VcxO OPTION | Blank = TCXO V = VCTCXO (external voltage control 2.5 +2.0 VDC for +5 ppm min.) |
| FREQUENCY | FREQUENCY IN MHz |
| TAPE AND REEL PACKAGE | -T |

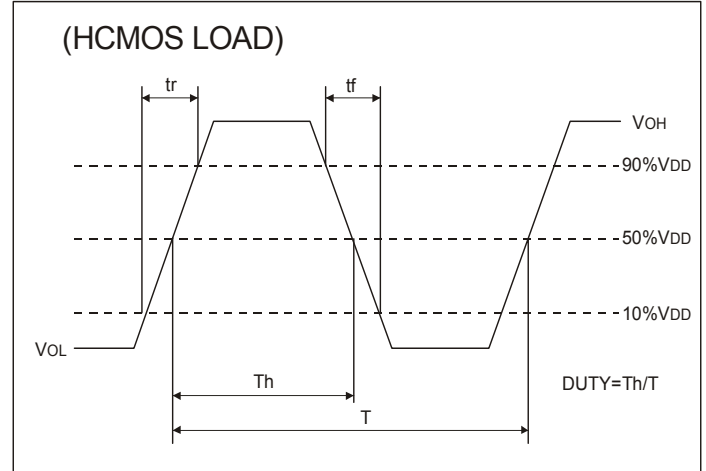
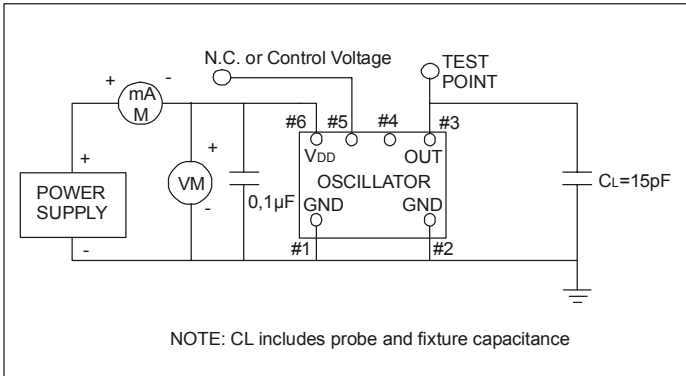
OUTLINE DRAWING M4317



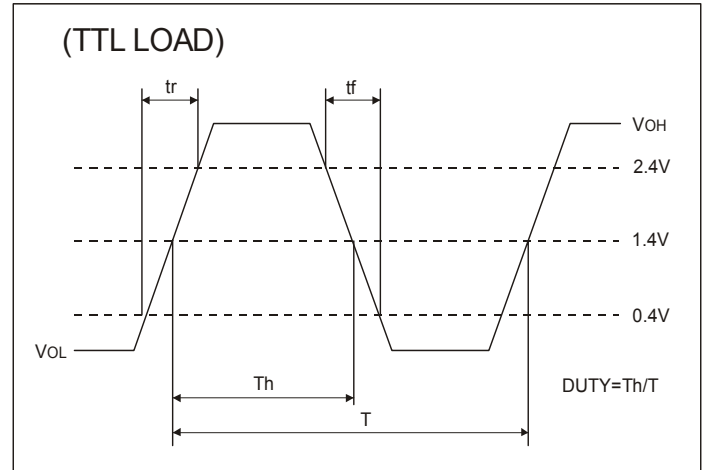
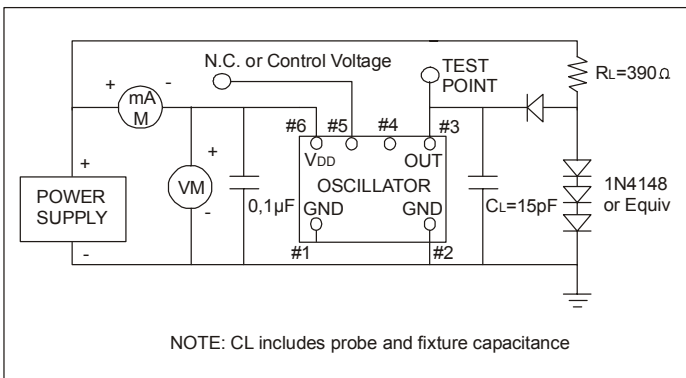
REFLOW SOLDER PROFILE



TEST CIRCUIT FOR HCMOS



TEST CIRCUIT FOR TTL



TEST CIRCUIT FOR CLIPPED SINE WAVE

