

Packaging Options Tape & Reel

EMK13 G 2 H -106.250M TR



Vibration

Frequency Tolerance/Stability ______ ±100ppm Maximum over -40°C to +85°C

Duty Cycle 50 ±5(%)

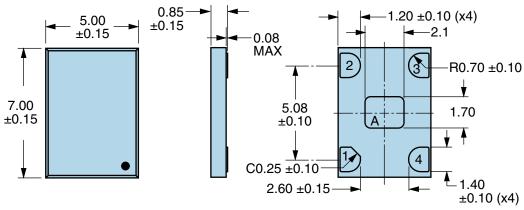
106.250MHz **Output Control Function** Tri-State (Disabled Output: High Impedance)

Nominal Frequency

| Frequency Tolerance/Stability ±100ppm Maximum over -40°C to +85°C (Inclusive of all conditions: Calibration Tolerance at 25°C, Frequency Stability over the Operating Temperature Range, Supply Voltage Change, Output Load Change, First Year Aging at 25°C, 26°C Reflow, Shock, and Vibration) Aging at 25°C ±1ppm Maximum First Year Operating Temperature Range -40°C to +85°C Supply Voltage 3.3Vdc ±10% nput Current 25mA Maximum Dutput Voltage Logic High (Voh) 90% of Vdd Minimum (ICH=+8mA) Dutput Voltage Logic Low (Voi) 10% of Vdd Maximum (ICL=+8mA) Rise/Fall Time 2nSec Maximum (Measured from 20% to 80% of waveform) Dutput Voltage Logic Low (Voi) 10% of Vdd Muximum (ICL=+8mA) Rise/Fall Time 2nSec Maximum (Measured at 50% of waveform) Dutput Colig E Type CMOS Dutput Control Function Tri-State (Disabled Output: High Impedance) Dutput Control Input Voltage +0.7Vdd Minimum or No Connect to Enable Output, +0.3Vdd Maximum to Disable Output Peak to Peak Jitter (IPK) 250pSec Maximum, 100pSec Typical Start Up Time 50mSec Maximum Storage Temperature Range -65°C to +125°C ENVIRONMENTAL & MECTHANICAL SPECIFICATIONS ESD Susceptibility MIL-STD-883, Method 3015, Class 2, HBM 2000V | ELECTRICAL SPECIFICA | TIONS |
|---|---------------------------------|--|
| Frequency Stability over the Operating Temperature Range, Supply Voltage Change, Disput Load Change, First Year Aging at 25°C Aging at 25°C ±1ppm Maximum First Year Operating Temperature Range -40°C to +85°C Supply Voltage 3.3Vdc ±10% Opticating Temperature Range -40°C to +85°C Supply Voltage 3.3Vdc ±10% Dutput Voltage Logic High (Voh) 90% of Vdd Minimum (IOH=-8mA) Dutput Voltage Logic Low (Vol) 10% of Vdd Maximum (IOL=+8mA) Rise/Fall Time 2nSec Maximum (IOL=+8mA) Dutput Voltage Logic Low (Vol) 10% of Vdd Maximum (IOL=+8mA) Load Drive Capability 15pF Maximum Dutput Voltage Logic Low (Vol) 10% of Vdd Minimum (IOL=+8mA) Control Function Tri-State (Disabled Output: High Impedance) Dutput Control Input Voltage -0.7Vdd Minimum or No Connect to Enable Output, +0.3Vdd Maximum to Disable Output Peak to Peak Jitter (tPK) 250pSec Maximum Storage Temperature Range -55°C to +125°C ENVIRONMENTAL | Nominal Frequency | 106.250MHz |
| Operating Temperature Range -40°C to +85°C Supply Voltage 3.3 Vdc ±10% nput Current 25mA Maximum Dutput Voltage Logic High (Voh) 90% of Vdd Minimum (IOH=-8mA) Dutput Voltage Logic Low (Vol) 10% of Vdd Maximum (IOL=+8mA) Rise/Fall Time 2nSec Maximum (Measured from 20% to 80% of waveform) Dutput Voltage Logic Low (Vol) 10% of Vdd Maximum (IOL=+8mA) Rise/Fall Time 2nSec Maximum (Measured from 20% to 80% of waveform) Load Drive Capability 15pF Maximum Dutput Logic Type CMOS Dutput Control Function Tri-State (Disabled Output: High Impedance) Dutput Control Input Voltage +0.7Vdd Minimum on No Connect to Enable Output, +0.3Vdd Maximum to Disable Output Peak to Peak Jitter (IPK) 250pSec Maximum, 100pSec Typical Start Up Time 50mSec Maximum Storage Temperature Range -55°C to +125°C ENVIRONMENTAL & MECHANICAL SPECIFICATIONS ESD Susceptibility MIL-STD-883, Method 3015, Class 2, HBM 2000V Flammability UL94-V0 Wechanical Shock MIL-STD-883, Method 2002, Condition G, 30,000G Moisture Sensitivity Level J-STD-020, MSL 1 Resistance MIL-STD-883, Method 210, Condition K Resistance to Solvents MIL-STD-802, Method 210, Condition K Resistance to | Frequency Tolerance/Stability | Frequency Stability over the Operating Temperature Range, Supply Voltage Change, Output Load Change, |
| Supply Voitage 3.3Vdc ±10% mput Current 25mA Maximum Dutput Voltage Logic High (Voh) 90% of Vdd Minimum (IOH=-8mA) Dutput Voltage Logic Low (Vol) 10% of Vdd Maximum (IOL=+8mA) Rise/Fall Time 2nSec Maximum (Measured from 20% to 80% of waveform) Duty Cycle 50 ±5(%) (Measured at 50% of waveform) Load Drive Capability 15pF Maximum Dutput Logic Type CMOS Dutput Control Function Tri-State (Disabled Output: High Impedance) Dutput Control Input Voltage +0.7Vdd Minimum or No Connect to Enable Output, +0.3Vdd Maximum to Disable Output Peak to Peak Jitter (tPK) 250pSec Maximum Storage Temperature Range -55°C to +125°C ENVIRONMENTAL & MECHANICAL SPECIFICATIONS ESD Susceptibility MIL-STD-883, Method 2002, Condition G, 30,000G Moisture Resistance MIL-STD-883, Method 210, Condition K Resistance to Solvents MIL-STD-202, Method 210, Condition K Resistance to Solvents MIL-STD-202, Method 210 Solderability MIL-STD-883, Method 2003 (Four I/O Pads on bottom of package only) Femperature Cycling MIL-STD-883, Method 2003 (Four I/O Pads on bottom of package only) | Aging at 25°C | ±1ppm Maximum First Year |
| District District Dutput Point 25mA Maximum Dutput Voltage Logic High (Voh) 90% of Vdd Minimum (IOL=-8mA) Dutput Voltage Logic Low (Vol) 10% of Vdd Maximum (IOL=+8mA) Rise/Fall Time 2nSec Maximum (Measured from 20% to 80% of waveform) Duty Cycle 50 ±5(%) (Measured at 50% of waveform) Load Drive Capability 15pF Maximum Dutput Logic Type CMOS Dutput Control Function Tri-State (Disabled Output: High Impedance) Dutput Control Input Voltage +0.7Vdd Minimum or No Connect to Enable Output, +0.3Vdd Maximum to Disable Output Peak to Peak Jitter (tPK) 250pSec Maximum, 100pSec Typical Start Up Time 50mSec Maximum Storage Temperature Range -55°C to +125°C ENVIRONMENTAL & MECHANICAL SPECIFICATIONS ESD Susceptibility MIL-STD-883, Method 2002, Condition G, 30,000G Woisture Resistance MIL-STD-883, Method 2002, Condition G, 30,000G Moisture Resistance MIL-STD-202, Method 210, Condition K Resistance to Solvents MIL-STD-202, Method 215 Solderability MIL-STD-883, Method 2003 (Four I/O Pads on bottom of package only) Femperature Cycling </th <td>Operating Temperature Range</td> <td>-40°C to +85°C</td> | Operating Temperature Range | -40°C to +85°C |
| Dutput Voltage Logic High (Voh) 90% of Vdd Minimum (IOH=-8mA) Dutput Voltage Logic Low (Vol) 10% of Vdd Maximum (IOL=+8mA) Rise/Fall Time 2nSec Maximum (Measured from 20% to 80% of waveform) Duty Cycle 50 ±5(%) (Measured at 50% of waveform) Load Drive Capability 15pF Maximum Dutput Logic Type CMOS Dutput Control Function Tri-State (Disabled Output: High Impedance) Dutput Control Input Voltage +0.7Vdd Minimum or No Connect to Enable Output, +0.3Vdd Maximum to Disable Output Peak to Peak Jitter (tPK) 250pSec Maximum Storage Temperature Range -55°C to +125°C ENVIRONMENTAL & MECHANICAL SPECIFICATIONS ESD Susceptibility MIL-STD-883, Method 3015, Class 2, HBM 2000V Flammability UL94-V0 Wechanical Shock MIL-STD-883, Method 2002, Condition G, 30,000G Moisture Sensitivity Level J-STD-020, MSL 1 Resistance to Soldering Heat MIL-STD-202, Method 210, Condition K Resistance to Solvents MIL-STD-202, Method 2003 (Four I/O Pads on bottom of package only) Femperature Cycling MIL-STD-883, Method 1001, Condition B | Supply Voltage | 3.3Vdc ±10% |
| Dutput Voltage Logic Low (Vol) 10% of Vdd Maximum (IOL=+8mA) Rise/Fall Time 2nSec Maximum (Measured from 20% to 80% of waveform) Duty Cycle 50 ±5(%) (Measured at 50% of waveform) Load Drive Capability 15pF Maximum Dutput Logic Type CMOS Dutput Logic Type CMOS Dutput Control Function Tri-State (Disabled Output: High Impedance) Output Control Input Voltage +0.7Vdd Minimum or No Connect to Enable Output, +0.3Vdd Maximum to Disable Output Peak to Peak Jitter (tPK) 250pSec Maximum Storage Temperature Range -55°C to +125°C ENVIRONMENTAL & MECHANICAL SPECIFICATIONS ESD susceptibility MIL-STD-883, Method 3015, Class 2, HBM 2000V Flammability UL94-V0 Wechanical Shock MIL-STD-883, Method 2002, Condition G, 30,000G Moisture Resistance MIL-STD-020, MSL 1 Resistance to Soldering Heat MIL-STD-020, Method 210, Condition K Resistance to Solvents MIL-STD-883, Method 2003 (Four I/O Pads on bottom of package only) Flammability MIL-STD-883, Method 2003 (Four I/O Pads on bottom of package only) Mil-STD-883, Method 2003 (Four I/O Pads on bottom of package only) | Input Current | 25mA Maximum |
| Rise/Fall Time 2nSec Maximum (Measured from 20% to 80% of waveform) Duty Cycle 50 ±5(%) (Measured at 50% of waveform) Load Drive Capability 15pF Maximum Dutput Logic Type CMOS Dutput Logic Type CMOS Dutput Control Function Tri-State (Disabled Output: High Impedance) Peak to Peak Jitter (tPK) 250pSec Maximum Storage Temperature Range -55°C to +125°C ENVIRONMENTAL & MECHANICAL SPECIFICATIONS ESD Susceptibility MIL-STD-883, Method 3015, Class 2, HBM 2000V VL94-V0 Wechanical Shock Milc-STD-883, Method 2002, Condition G, 30,000G Milc-STD-020, MSL 1 Resistance to Soldering Heat MIL-STD-202, Method 210, Condition K Resistance to Solvents MIL-STD-202, Method 203 (Four I/O Pads on bottom of package only) Temperature Cycling MIL-STD-883, Method 1010, Condition B | Output Voltage Logic High (Voh) | 90% of Vdd Minimum (IOH=-8mA) |
| Duty Cycle 50 ±5(%) (Measured at 50% of waveform) Load Drive Capability 15pF Maximum Dutput Logic Type CMOS Dutput Control Function Tri-State (Disabled Output: High Impedance) Dutput Control Input Voltage +0.7Vdd Minimum or No Connect to Enable Output, +0.3Vdd Maximum to Disable Output Peak to Peak Jitter (tPK) 250pSec Maximum, 100pSec Typical Start Up Time 50mSec Maximum Storage Temperature Range -55°C to +125°C ENVIRONMENTAL & MECHANICAL SPECIFICATIONS ESD Susceptibility MIL-STD-883, Method 3015, Class 2, HBM 2000V Flammability UL94-V0 Wechanical Shock MIL-STD-883, Method 2002, Condition G, 30,000G Moisture Resistance MIL-STD-883, Method 1004 Moisture Sensitivity Level J-STD-020, MSL 1 Resistance to Soldering Heat MIL-STD-202, Method 210, Condition K Resistance to Solvents MIL-STD-883, Method 2003 (Four I/O Pads on bottom of package only) Femperature Cycling MIL-STD-883, Method 1010, Condition B | Output Voltage Logic Low (Vol) | 10% of Vdd Maximum (IOL=+8mA) |
| Load Drive Capability 15pF Maximum Dutput Logic Type CMOS Dutput Control Function Tri-State (Disabled Output: High Impedance) Output Control Input Voltage +0.7Vdd Minimum or No Connect to Enable Output, +0.3Vdd Maximum to Disable Output Peak to Peak Jitter (tPK) 250pSec Maximum, 100pSec Typical Start Up Time 50mSec Maximum Storage Temperature Range -55°C to +125°C ENVIRONMENTAL & MECHANICAL SPECIFICATIONS ESD Susceptibility MIL-STD-883, Method 3015, Class 2, HBM 2000V Flammability UL94-V0 Mechanical Shock MIL-STD-883, Method 2002, Condition G, 30,000G Moisture Resistance MIL-STD-883, Method 1004 Moisture Sensitivity Level J-STD-020, MSL 1 Resistance to Soldering Heat MIL-STD-202, Method 210, Condition K Resistance to Solvents MIL-STD-883, Method 2003 (Four I/O Pads on bottom of package only) Temperature Cycling MIL-STD-883, Method 1010, Condition B | Rise/Fall Time | 2nSec Maximum (Measured from 20% to 80% of waveform) |
| Dutput Logic Type CMOS Dutput Control Function Tri-State (Disabled Output: High Impedance) Output Control Input Voltage +0.7Vdd Minimum or No Connect to Enable Output, +0.3Vdd Maximum to Disable Output Peak to Peak Jitter (tPK) 250pSec Maximum, 100pSec Typical Start Up Time 50mSec Maximum Storage Temperature Range -55°C to +125°C ENVIRONMENTAL & MECHANICAL SPECIFICATIONS ESD Susceptibility MIL-STD-883, Method 3015, Class 2, HBM 2000V Flammability UL94-V0 Mechanical Shock MIL-STD-883, Method 2002, Condition G, 30,000G Moisture Resistance MIL-STD-020, MSL 1 Resistance to Soldering Heat MIL-STD-202, Method 210, Condition K Resistance to Solvents MIL-STD-202, Method 2003 (Four I/O Pads on bottom of package only) MIL-STD-883, Method 1010, Condition B MIL-STD-883, Method 1010, Condition B | Duty Cycle | 50 ±5(%) (Measured at 50% of waveform) |
| Dutput Control Function Tri-State (Disabled Output: High Impedance) Dutput Control Input Voltage +0.7Vdd Minimum or No Connect to Enable Output, +0.3Vdd Maximum to Disable Output Peak to Peak Jitter (tPK) 250pSec Maximum, 100pSec Typical Start Up Time 50mSec Maximum Storage Temperature Range -55°C to +125°C ENVIRONMENTAL & MECHANICAL SPECIFICATIONS ESD Susceptibility MIL-STD-883, Method 3015, Class 2, HBM 2000V Flammability UL94-V0 Wechanical Shock MIL-STD-883, Method 2002, Condition G, 30,000G Moisture Resistance MIL-STD-883, Method 210, Condition K Resistance to Soldering Heat MIL-STD-202, Method 210, Condition K Resistance to Solvents MIL-STD-883, Method 2003 (Four I/O Pads on bottom of package only) Temperature Cycling MIL-STD-883, Method 1010, Condition B | Load Drive Capability | 15pF Maximum |
| Dutput Control Input Voltage +0.7Vdd Minimum or No Connect to Enable Output, +0.3Vdd Maximum to Disable Output Peak to Peak Jitter (tPK) 250pSec Maximum, 100pSec Typical Start Up Time 50mSec Maximum Storage Temperature Range -55°C to +125°C ENVIRONMENTAL & MECHANICAL SPECIFICATIONS ESD Susceptibility MIL-STD-883, Method 3015, Class 2, HBM 2000V Flammability UL94-V0 Wechanical Shock MIL-STD-883, Method 2002, Condition G, 30,000G Moisture Resistance MIL-STD-020, MSL 1 Resistance to Soldering Heat MIL-STD-202, Method 210, Condition K Resistance to Solvents MIL-STD-202, Method 2003 (Four I/O Pads on bottom of package only) Temperature Cycling MIL-STD-883, Method 1010, Condition B | Output Logic Type | CMOS |
| Peak to Peak Jitter (tPK) 250pSec Maximum, 100pSec Typical Start Up Time 50mSec Maximum Storage Temperature Range -55°C to +125°C ENVIRONMENTAL & MECHANICAL SPECIFICATIONS ESD Susceptibility MIL-STD-883, Method 3015, Class 2, HBM 2000V Flammability UL94-V0 Mechanical Shock MIL-STD-883, Method 2002, Condition G, 30,000G Moisture Resistance MIL-STD-883, Method 1004 Moisture Sensitivity Level J-STD-020, MSL 1 Resistance to Soldering Heat MIL-STD-202, Method 210, Condition K Resistance to Solvents MIL-STD-883, Method 2003 (Four I/O Pads on bottom of package only) Temperature Cycling MIL-STD-883, Method 1010, Condition B | Output Control Function | Tri-State (Disabled Output: High Impedance) |
| Start Up Time 50mSec Maximum Storage Temperature Range -55°C to +125°C ENVIRONMENTAL & MECHANICAL SPECIFICATIONS ESD Susceptibility MIL-STD-883, Method 3015, Class 2, HBM 2000V Flammability UL94-V0 Mechanical Shock MIL-STD-883, Method 2002, Condition G, 30,000G Moisture Resistance MIL-STD-883, Method 1004 Moisture Sensitivity Level J-STD-020, MSL 1 Resistance to Soldering Heat MIL-STD-202, Method 210, Condition K Resistance to Solvents MIL-STD-202, Method 2003 (Four I/O Pads on bottom of package only) Temperature Cycling MIL-STD-883, Method 1010, Condition B | Output Control Input Voltage | +0.7Vdd Minimum or No Connect to Enable Output, +0.3Vdd Maximum to Disable Output |
| Storage Temperature Range -55°C to +125°C ENVIRONMENTAL & MECHANICAL SPECIFICATIONS ESD Susceptibility MIL-STD-883, Method 3015, Class 2, HBM 2000V Flammability UL94-V0 Mechanical Shock MIL-STD-883, Method 2002, Condition G, 30,000G Moisture Resistance MIL-STD-883, Method 1004 Moisture Sensitivity Level J-STD-020, MSL 1 Resistance to Soldering Heat MIL-STD-202, Method 210, Condition K Resistance to Solvents MIL-STD-883, Method 2003 (Four I/O Pads on bottom of package only) Temperature Cycling MIL-STD-883, Method 1010, Condition B | Peak to Peak Jitter (tPK) | 250pSec Maximum, 100pSec Typical |
| ENVIRONMENTAL & MECHANICAL SPECIFICATIONS ESD Susceptibility MIL-STD-883, Method 3015, Class 2, HBM 2000V Flammability UL94-V0 Mechanical Shock MIL-STD-883, Method 2002, Condition G, 30,000G Moisture Resistance MIL-STD-883, Method 1004 Moisture Sensitivity Level J-STD-020, MSL 1 Resistance to Soldering Heat MIL-STD-202, Method 210, Condition K Resistance to Solvents MIL-STD-202, Method 215 Solderability MIL-STD-883, Method 1001, Condition B | Start Up Time | 50mSec Maximum |
| ESD SusceptibilityMIL-STD-883, Method 3015, Class 2, HBM 2000VFlammabilityUL94-V0Mechanical ShockMIL-STD-883, Method 2002, Condition G, 30,000GMoisture ResistanceMIL-STD-883, Method 1004Moisture Sensitivity LevelJ-STD-020, MSL 1Resistance to Soldering HeatMIL-STD-202, Method 210, Condition KResistance to SolventsMIL-STD-202, Method 215SolderabilityMIL-STD-883, Method 2003 (Four I/O Pads on bottom of package only)Temperature CyclingMIL-STD-883, Method 1010, Condition B | Storage Temperature Range | -55°C to +125°C |
| FlammabilityUL94-V0Mechanical ShockMIL-STD-883, Method 2002, Condition G, 30,000GMoisture ResistanceMIL-STD-883, Method 1004Moisture Sensitivity LevelJ-STD-020, MSL 1Resistance to Soldering HeatMIL-STD-202, Method 210, Condition KResistance to SolventsMIL-STD-202, Method 215SolderabilityMIL-STD-883, Method 2003 (Four I/O Pads on bottom of package only)Temperature CyclingMIL-STD-883, Method 1010, Condition B | ENVIRONMENTAL & MEC | HANICAL SPECIFICATIONS |
| Mechanical ShockMIL-STD-883, Method 2002, Condition G, 30,000GMoisture ResistanceMIL-STD-883, Method 1004Moisture Sensitivity LevelJ-STD-020, MSL 1Resistance to Soldering HeatMIL-STD-202, Method 210, Condition KResistance to SolventsMIL-STD-202, Method 215SolderabilityMIL-STD-883, Method 2003 (Four I/O Pads on bottom of package only)Temperature CyclingMIL-STD-883, Method 1010, Condition B | ESD Susceptibility | MIL-STD-883, Method 3015, Class 2, HBM 2000V |
| Moisture Resistance MIL-STD-883, Method 1004 Moisture Sensitivity Level J-STD-020, MSL 1 Resistance to Soldering Heat MIL-STD-202, Method 210, Condition K Resistance to Solvents MIL-STD-202, Method 215 Solderability MIL-STD-883, Method 2003 (Four I/O Pads on bottom of package only) Temperature Cycling MIL-STD-883, Method 1010, Condition B | Flammability | UL94-V0 |
| Moisture Sensitivity Level J-STD-020, MSL 1 Resistance to Soldering Heat MIL-STD-202, Method 210, Condition K Resistance to Solvents MIL-STD-202, Method 215 Solderability MIL-STD-883, Method 2003 (Four I/O Pads on bottom of package only) Temperature Cycling MIL-STD-883, Method 1010, Condition B | Mechanical Shock | MIL-STD-883, Method 2002, Condition G, 30,000G |
| Resistance to Soldering Heat MIL-STD-202, Method 210, Condition K Resistance to Solvents MIL-STD-202, Method 215 Solderability MIL-STD-883, Method 2003 (Four I/O Pads on bottom of package only) Temperature Cycling MIL-STD-883, Method 1010, Condition B | Moisture Resistance | MIL-STD-883, Method 1004 |
| Resistance to Solvents MIL-STD-202, Method 215 Solderability MIL-STD-883, Method 2003 (Four I/O Pads on bottom of package only) Temperature Cycling MIL-STD-883, Method 1010, Condition B | Moisture Sensitivity Level | J-STD-020, MSL 1 |
| Solderability MIL-STD-883, Method 2003 (Four I/O Pads on bottom of package only) Temperature Cycling MIL-STD-883, Method 1010, Condition B | Resistance to Soldering Heat | MIL-STD-202, Method 210, Condition K |
| Temperature Cycling MIL-STD-883, Method 1010, Condition B | Resistance to Solvents | MIL-STD-202, Method 215 |
| | Solderability | MIL-STD-883, Method 2003 (Four I/O Pads on bottom of package only) |
| Thormal Shack Mill STD 982 Mathed 1011 Condition P | Temperature Cycling | MIL-STD-883, Method 1010, Condition B |
| | Thermal Shock | MIL-STD-883, Method 1011, Condition B |

MIL-STD-883, Method 2007, Condition A, 20G

MECHANICAL DIMENSIONS (all dimensions in millimeters)



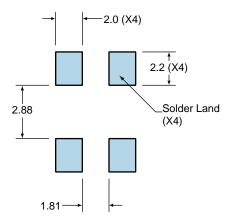
| PIN | CONNECTION |
|------|-------------------------------|
| 1 | Tri-State (High Impedance) |
| 1 | Power Down (Logic Low) |
| 2 | Ground |
| 3 | Output |
| 4 | Supply Voltage |
| LINE | MARKING |
| 1 | XXXX XXXX=Ecliptek |

Manufacturing Lot Code

Note A: Center paddle is connected internally to oscillator ground (Pad 2).

Suggested Solder Pad Layout

All Dimensions in Millimeters

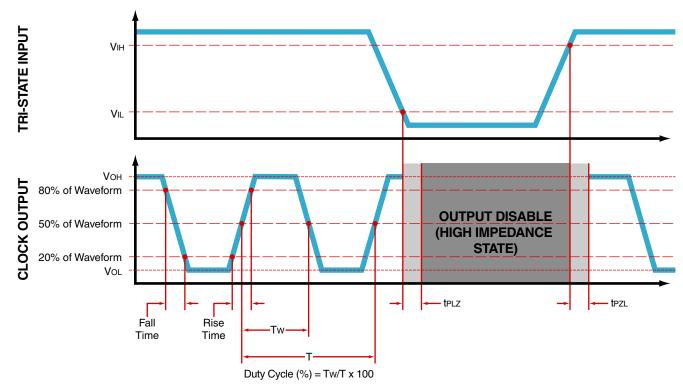


All Tolerances are ±0.1

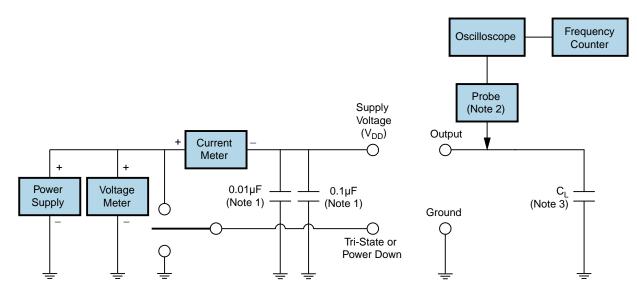




OUTPUT WAVEFORM & TIMING DIAGRAM



Test Circuit for CMOS Output



Note 1: An external 0.1μ F low frequency tantalum bypass capacitor in parallel with a 0.01μ F high frequency ceramic bypass capacitor close to the package ground and V_{DD} pin is required.

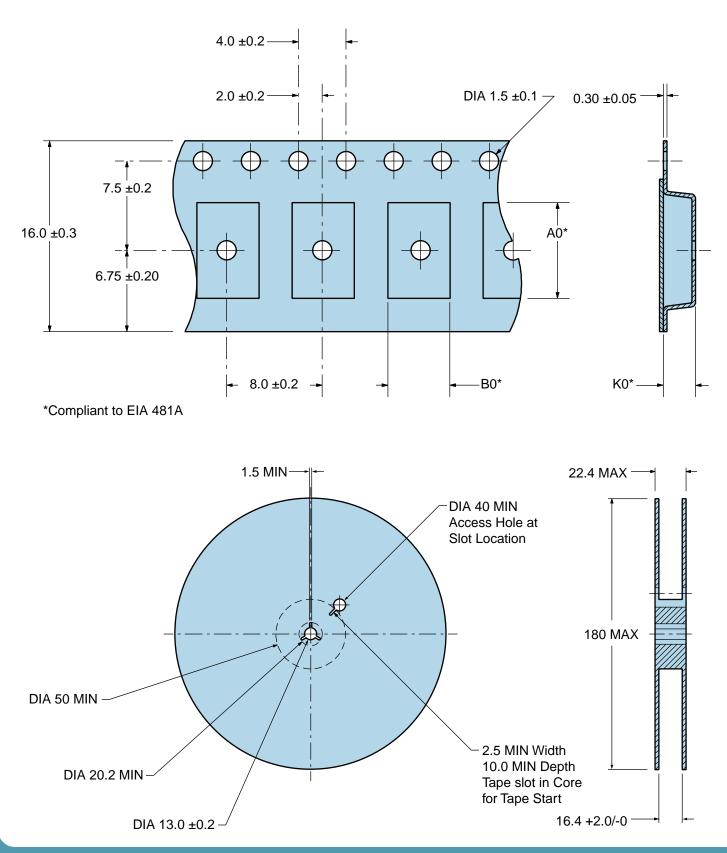
Note 2: A low capacitance (<12pF), 10X attenuation factor, high impedance (>10Mohms), and high bandwidth (>300MHz) passive probe is recommended.

Note 3: Capacitance value C_L includes sum of all probe and fixture capacitance.



Tape & Reel Dimensions

Quantity Per Reel: 1,000 units





Recommended Solder Reflow Methods

EMK13G2H-106.250M TR



High Temperature Infrared/Convection

| T_s MAX to T_L (Ramp-up Rate) | 3°C/second Maximum |
|---|--------------------------------------|
| Preheat | |
| - Temperature Minimum (T _s MIN) | 150°C |
| - Temperature Typical (T _s TYP) | 175°C |
| - Temperature Maximum (T _s MAX) | 200°C |
| - Time (t _s MIN) | 60 - 180 Seconds |
| Ramp-up Rate (T⊾ to T _P) | 3°C/second Maximum |
| Time Maintained Above: | |
| - Temperature (T∟) | 217°C |
| - Time (t∟) | 60 - 150 Seconds |
| Peak Temperature (T _P) | 260°C Maximum for 10 Seconds Maximum |
| Target Peak Temperature (T _P Target) | 250°C +0/-5°C |
| Time within 5°C of actual peak (t_p) | 20 - 40 seconds |
| Ramp-down Rate | 6°C/second Maximum |
| Time 25°C to Peak Temperature (t) | 8 minutes Maximum |
| Moisture Sensitivity Level | Level 1 |



Recommended Solder Reflow Methods

EMK13G2H-106.250M TR



Low Temperature Infrared/Convection 240°C

| T _s MAX to T _L (Ramp-up Rate) | 5°C/second Maximum |
|---|--|
| Preheat | |
| - Temperature Minimum (Ts MIN) | N/A |
| - Temperature Typical (T _s TYP) | 150°C |
| - Temperature Maximum (T _s MAX) | N/A |
| - Time (t _s MIN) | 60 - 120 Seconds |
| Ramp-up Rate (T⊾ to T _P) | 5°C/second Maximum |
| Time Maintained Above: | |
| - Temperature (T∟) | 150°C |
| - Time (t∟) | 200 Seconds Maximum |
| Peak Temperature (T _P) | 240°C Maximum |
| Target Peak Temperature (T _P Target) | 240°C Maximum 1 Time / 230°C Maximum 2 Times |
| Time within 5°C of actual peak (t _p) | 10 seconds Maximum 2 Times / 80 seconds Maximum 1 Time |
| Ramp-down Rate | 5°C/second Maximum |
| Time 25°C to Peak Temperature (t) | N/A |
| Moisture Sensitivity Level | Level 1 |

Low Temperature Manual Soldering

185°C Maximum for 10 seconds Maximum, 2 times Maximum.

High Temperature Manual Soldering

260°C Maximum for 5 seconds Maximum, 2 times Maximum.