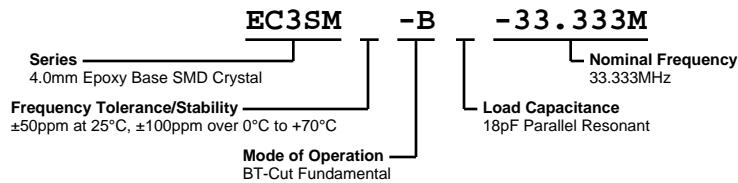


EC3SM-B-33.333M



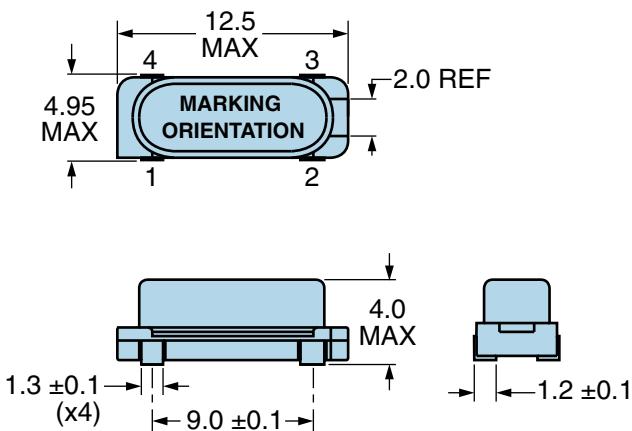
ELECTRICAL SPECIFICATIONS

Nominal Frequency	33.333MHz
Frequency Tolerance/Stability	±50ppm at 25°C, ±100ppm over 0°C to +70°C
Aging at 25°C	±5ppm/year Maximum
Load Capacitance	18pF Parallel Resonant
Shunt Capacitance (C0)	7pF Maximum
Equivalent Series Resistance	40 Ohms Maximum
Mode of Operation	BT-Cut Fundamental
Drive Level	1mWatts Maximum
Storage Temperature Range	-40°C to +85°C
Insulation Resistance	500 Megaohms Minimum at 100Vdc

ENVIRONMENTAL & MECHANICAL SPECIFICATIONS

Fine Leak Test	MIL-STD-883, Method 1014 Condition A
Gross Leak Test	MIL-STD-883, Method 1014 Condition C
Mechanical Shock	MIL-STD-202, Method 213 Condition C
Resistance to Soldering Heat	MIL-STD-202, Method 210
Resistance to Solvents	MIL-STD-202, Method 215
Solderability	MIL-STD-883, Method 2003
Temperature Cycling	MIL-STD-883, Method 1010
Vibration	MIL-STD-883, Method 2007 Condition A

MECHANICAL DIMENSIONS (all dimensions in millimeters)

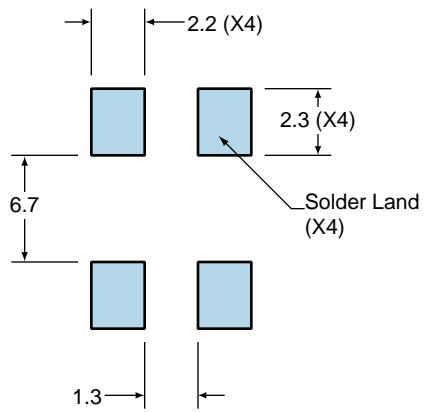


PIN	CONNECTION
1	Crystal
2	Connected to Pin 3
3	Connected to Pin 2
4	Crystal

LINE	MARKING
1	E33.333 E=Ecliptek Designator

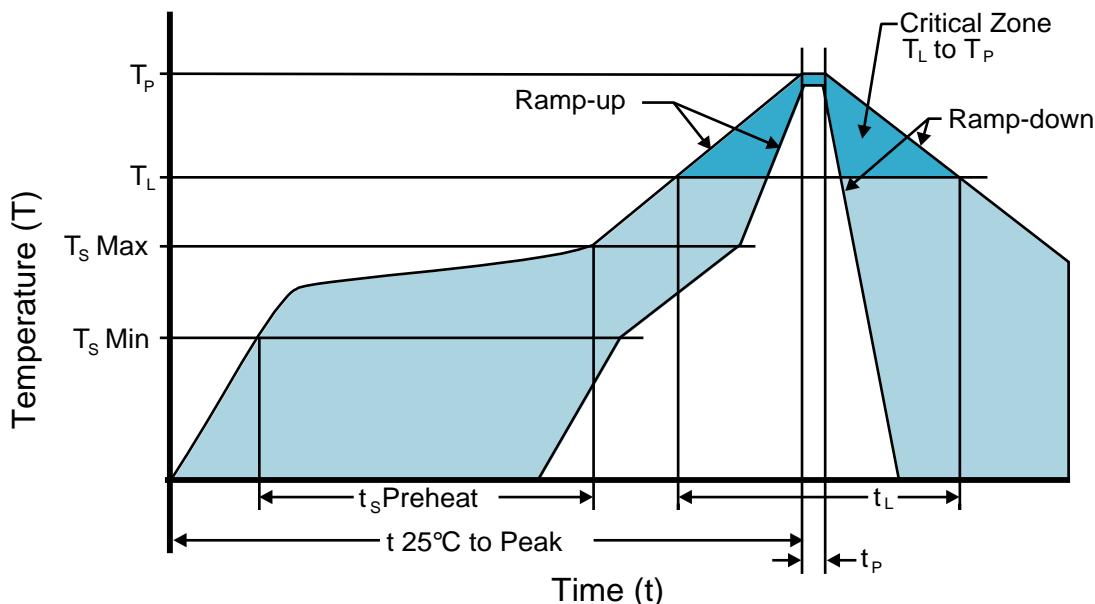
Suggested Solder Pad Layout

All Dimensions in Millimeters



All Tolerances are ± 0.1

Recommended Solder Reflow Methods



Low Temperature Infrared/Convection 225°C

$T_s\ MAX$ to T_l (Ramp-up Rate) 5°C/second Maximum

Preheat

- Temperature Minimum ($T_s\ MIN$) N/A
 - Temperature Typical ($T_s\ TYP$) 150°C
 - Temperature Maximum ($T_s\ MAX$) N/A
 - Time ($t_s\ MIN$) 30 - 60 Seconds

Ramp-up Rate (T_l to T_p) 5°C/second Maximum

Time Maintained Above:

- Temperature (T_l) 150°C
 - Time (t_L) 200 Seconds Maximum

Peak Temperature (T_p) 225°C Maximum

Target Peak Temperature (T_p Target) 225°C Maximum 2 Times

Time within 5°C of actual peak (t_p) 80 seconds Maximum 2 Times

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.