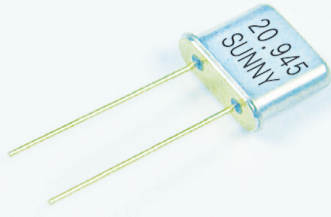


UM TYPE UM-5



- UM type package
- AT cut available
- Tight tolerance / stability
- Wide temperature range
- Frequencies to 200.000 MHz available
- Pb-free and RoHS compliance

ELECTRICAL SPECIFICATIONS

| | |
|---|---|
| Frequency Range | 10.000 to 200.000MHz |
| Operating Temperature Range | -10 to +60°C (STD), -20 to +70°C, or specify |
| Storage Temperature Range | -40 to +85°C |
| Frequency Tolerance (at 25°C) | ±10, ±15, ±20(STD), ±30, ±50ppm, or specify |
| Frequency stability Over Operating Temperature Range | See Table1 in page 4 ±10, ±15, ±20(STD), ±30, ±50ppm |
| Load Capacitance(CL) | 18pF(STD), Custom CL≥10pF or Series Resonant |
| Drive Level | 100μW(1000μW max.) |
| Shunt Capacitance(Co) | 7.0pF max. |
| Aging (at 25°C) | ±3.0ppm/year max. |
| Insulation Resistance | 500MΩ min. at 100V _{DC} |

EQUIVALENT SERIES RESISTANCE(ESR)

| Frequency Range(MHz) | ESR(Ω MAX.) | Mode of Oscillation |
|----------------------|-------------|---------------------|
| 10.000 ~ 15.999 | 60 | Fundamental |
| 16.000 ~ 60.000 | 40 | Fundamental |
| 30.000 ~ 79.999 | 80 | 3rd Overtone |
| 80.000 ~ 150.000 | 80 | 3rd Overtone |
| 80.000 ~ 200.000 | 100 | 5th Overtone |

PART NUMBERING GUIDE

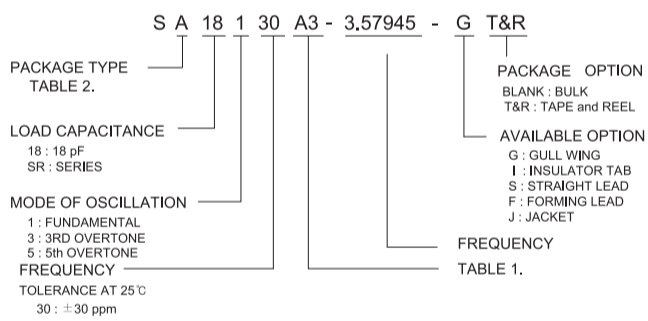


TABLE 1.

| FREQUENCY STABILITY VS. TEMPERATURE RANGE | | ±5 | ±7.5 | ±10 | ±15 | ±20 | ±30 | ±50 | ±100 |
|---|------------|----|------|-----|-----|-----|-----|-----|------|
| Temp | Stability | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| | -10 ~ 60°C | A | * | * | * | * | * | * | * |
| -20 ~ 60°C | B | | * | * | * | * | * | * | * |
| 0 ~ 70°C | C | | * | * | * | * | * | * | * |
| -10 ~ 70°C | D | | * | * | * | * | * | * | * |
| -20 ~ 70°C | E | | | * | * | * | * | * | * |
| -30 ~ 60°C | F | | | * | * | * | * | * | * |
| -20 ~ 85°C | G | | | | * | * | * | * | * |
| -30 ~ 70°C | H | | | | * | * | * | * | * |
| -30 ~ 85°C | I | | | | | * | * | * | * |
| -40 ~ 85°C | J | | | | | | * | * | * |
| -40 ~ 90°C | K | | | | | | | * | * |
| -40 ~ 105°C | L | | | | | | | * | * |

TABLE 2.

| A | B | C | D | E | F | G | H | J | K | L | M | N | O | P | Q |
|---------|---------|----------|----------|----------|------|------|------|------|------|------|------|------|------|-------|-------|
| HC-49/U | HC-49/T | ATS-25/U | ATS-49/U | ATS-51/U | UM-1 | UM-4 | UM-5 | SX-1 | SX-3 | SX-5 | SX-7 | SX-6 | SX-8 | SX-32 | SX-22 |

MECHANICAL DIMENSIONS

(mm)

