

TF310 Series Crystal



- 3 x 8mm, 3 x 8.5mm, 3 x 10mm Cylindrical
- AT Strip Cylindrical Crystal
- RoHS Compliant
- Thru-Hole Device



| | |
|------------------------------------|---------------------------------------|
| Frequency Range | 3.579545MHz to 65.000MHz |
| Frequency Tolerance / Stability | (See Part Number Guide for Options) |
| Operating Temperature Range | (See Part Number Guide for Options) |
| Storage Temperature | -40°C to +85°C |
| Aging | ±5ppm per first year Maximum |
| Shunt Capacitance | 5pF Maximum |
| Load Capacitance | (See Part Number Guide for Options) |
| Equivalent Series Resistance (ESR) | See ESR Chart |
| Mode of Operation | Fundamental or 3 rd OT |
| Drive Level | 100µW Maximum |
| Insulation Resistance | 500 Megaohms Minimum at 100VDC ±15VDC |

Environmental & Mechanical Detail

| | |
|--------------------|-----------------------------------|
| Shock | MIL-STD-883, Method 2002 Cond B |
| Solderability | MIL-STD-883, Method 2003 |
| Solvent Resistance | MIL-STD-202, Method 215 |
| Vibration | MIL-STD-883, Method 2007, Cond A |
| Gross Leak Test | MIL-STD-883, Method 1014, Cond C |
| Fine Leak Test | MIL-STD-883, Method 1014, Cond A2 |
| MSL | Level 1 per IPC/JEDEC J-STD 20 |

Marking Detail

Line 1 = Frequency

**QUALITY SYSTEM
CERTIFIED
= ISO 9001 =**

MMD MONITOR/QUARTZEK – An ILSI Company
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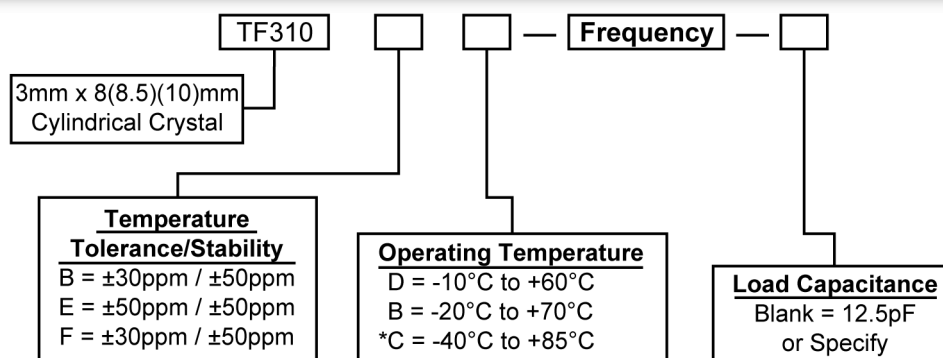


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ESR Chart

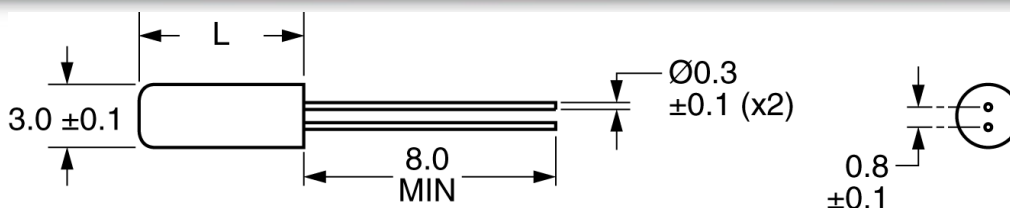
| Frequency Range | ESR (Ohms) | Mode / Cut |
|------------------------|------------|-----------------------|
| 3.57954MHz to 5.299MHz | 150 Max | Fund / AT |
| 5.500MHz to 5.999MHz | 100 Max | Fund / AT |
| 6.000MHz to 9.999MHz | 80 Max | Fund / AT |
| 10.000MHz to 11.999MHz | 60 Max | Fund / AT |
| 12.000MHz to 15.999MHz | 50 Max | Fund / AT |
| 16.000MHz to 36.000MHz | 40 Max | Fund / AT |
| 26.000MHz to 36.000MHz | 100 Max | 3 rd OT/AT |
| 36.000MHz to 65.000MHz | 80 Max | 3 rd OT/AT |

Part Number Guide



Please consult with MMD Sales Department for any other parameters or options.
 *Not available for all frequencies

Mechanical Details



| Frequency Range | "L" Dimension |
|-------------------------|---------------|
| 3.579545MHz to 3.999MHz | 10.0 ±0.2 |
| 4.000MHz to 5.999MHz | 8.5 ±0.2 |
| 6.000MHz to 70MHz | 8.0 ±0.2 |

All dimensions in millimeters

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