



# SMD Crystal Oscillators

## CMOS Output

### 5.0x3.2x1.2mm AO53 Series

#### Features

- Ultra small SMD seam sealed clock crystal oscillator units.
- High precision characteristic covering up to high frequency range.
- Designed for automatic mounting and reflow soldering.
- Tri-State function available.
- Supply voltage range : 1.8 V~3.3 V.
- High stability, low jitter , low power consumption.
- RoHS Compliant / Pb Free.



#### Crystals specifications

| ITEMS/TYPE                                | AO53                    |
|---|-------------------------|
| Frequency Range                           | 1~54MHz                 |
| Output Type                               | CMOS                    |
| Output Load                               | 15pF , or specify       |
| Oscillation Mode                          | Fundamental             |
| Supply Voltage                            | 1.8V~3.3V, or specify   |
| Frequency Stability                       | ± 25ppm, or specify     |
| Operating Temperature Range               | -40~+85 °C , or specify |
| Storage Temperature Range                 | -55~+125 °C             |
| Voltage Vol ( Max. )/Voltage Voh ( Min. ) | VOH=90%Vdd / VOL+10%Vdd |
| Rise ( Tr ) / Fall ( Tf ) Time            | 5ns Max.                |
| Current Consumption                       | 10mA Max.               |
| Symmetry                                  | 45 ~ 55%                |
| Start-up Time                             | 5 ms Max.               |
| Phase Jitter (12KHz ~ 20MHz )             | 1 ps Max.               |
| Aging ( at 25°C )                         | ± 3 ppm / year Max.     |
| Reliability Standard                      | AEC-Q100                |
| Packing Unit                              | 1,000pcs/Reel           |

#### Dimensions and patterns(unit:mm)

