

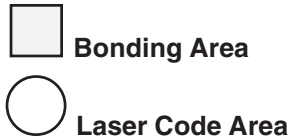
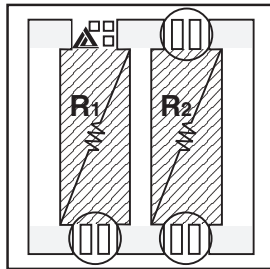


Stable Extended Capability Chip Series

California Micro Devices Hx (Stable Extended Capability Chip) Series offer exceptional stability and low noise. Available in the standard center tapped configuration,

they have low electro migration qualities and extremely low TCR.

| Electrical Specifications | | | |
|---------------------------|--|------------------------|-----|
| Parameter | Conditions | | |
| TCR | -55°C to 125°C | ±100ppm | Max |
| TTCR | -55°C to 125°C | ±5ppm/°C | Max |
| Operating Voltage | -55°C to 125°C | 100Vdc | Max |
| Power Rating | @ 70°C (Derate linearly to zero @ 150°C) | 125mw | Max |
| Deration | 30°C for 2 years | ±0.1%Δ | Max |
| Thermal Shock | Method 107 MIL-STD-202F | ±0.2%ΔR | Max |
| High Temperature Exposure | 100 Hrs @ 150°C Ambient | ±0.15% | Max |
| Moisture Resistance | Method 106 MIL-STD-202F | ±0.2%ΔR | Max |
| Life | Method 108 MIL-STD-202F (125°C/1000 hr) | ±0.2%ΔR | Max |
| Noise | Method 308 MIL-STD-202F up to 250KΩ | -35dB -20dB | Max |
| Insulation Resistance | @25°C | 1 X 10 ¹² Ω | Min |



Formats
Die Size: 45±3 mils square
Bonding Pads: 4x4 mils typical

1 MΩ to 20 MΩ

| Values |
|--|
| 1MΩ to 20MΩ standard. Standard ratio tolerance between resistors = ±1%. Tighter ratio tolerance available. |

| Mechanical Specifications | |
|---------------------------|-------------------------------------|
| Substrate | Silicon 10±2 mils thick |
| Isolation Layer | SiO ₂ 10,000Å thick, min |
| Resistor | Proprietary Silicon Chrome |
| Backing | Lapped (gold optional) |
| Bond Pads | Aluminum 10,000Å thick, min |

| Notes |
|---|
| 1. Code boxes are available for alphanumeric laser marking on the chip. |
| 2. Resistor pattern may vary from one value to another. |

| Packaging |
|---|
| Two inch square trays of 400 chips maximum is standard. |

| Part Number Designation | | | | | | |
|-------------------------|---|-----------|---------------------|----------------------|--------------------|-----------------|
| XRN740 | 1005 | F | A | G | W | P |
| Series | Resistance Value | Tolerance | TCR | Bond Pads | Backing | Ratio Tolerance |
| | First 3 digits are significant value. Last digit represents number of zeros. R indicates decimal point. | D = ±0.5% | No Letter = ±100ppm | G = Gold | W = Gold | Std = ±1% |
| | | F = ±1% | A = ±50ppm | No Letter = Aluminum | L = Lapped | P = ±0.5% |
| | | G = ±2% | B = ±25ppm | | No Letter = Either | |
| | | J = ±5% | | | | |
| | | K = ±10% | | | | |