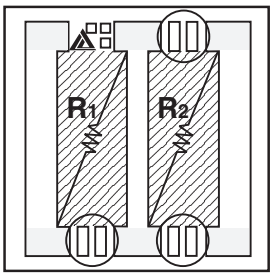
Stable Extended Capability Chip Series

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 ≥250KΩ	–35dB –20dB	Max
Insulation Resistance	@25°C	1 X 10^{12}Ω	Min



1 MΩ to 20 MΩ

Bonding Area

Laser Code Area

Formats

Die Size: 45±3 mils square

Bonding Pads: 4x4 mils typical

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%				

© 2000 California Micro Devices Corp. All rights reserved.

C1360800