

## Clock Terminator

### Features

- Stable resistor-capacitor network
- Ideal for high-speed logic
- Low lead inductance
- Reduces board space compared to discretes
- SOT Packages

### Application

- Clock termination

### Product Description

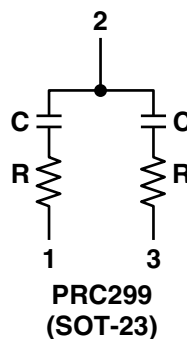
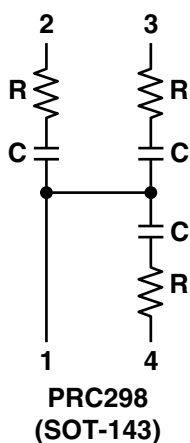
High speed microprocessors like Intel's Pentium®, DEC's Alpha, Motorola's 68K and PowerPC, Sun's SPARC, MIPS, and other RISC-based systems require well-controlled and precise clock signals to maintain a high performance synchronous system. However, very fast edge rated clock signals exhibit transmission line effects on the clock lines resulting in undershoot and overshoot disturbances.

CAMD's PRC298/299 SOT resistor-capacitor integrated thin film networks are specifically designed to eliminate transmission line effects on high speed clock and data lines.

These networks are fabricated on a silicon substrate using advanced thin film technology. They have low parasitic inductance compared to discrete and conventional thick film filters and provide effective AC termination.

Why thin film RC networks? The PRC298/299 is an integrated RC network fabricated on a silicon substrate using advanced thin film technology. This technology insures a fixed time constant and does not create additional skew on the clock lines. It offers very low parasitic inductance compared to conventional discrete thick film-based approaches and provides effective termination at high frequencies.

### SCHEMATIC CONFIGURATIONS





California Micro Devices can develop a fully customized solution which embodies the configuration shown in this data sheet or modified to suit specific application requirements. A Non-Recurring Engineering (NRE) charge will apply for all fully customized requirements and a minimum order/lot will be required.

Please direct your detailed circuit configuration and specification requirements to your local CAMD representative or to the factory for a quotation.

STANDARD SPECIFICATIONS	
Resistance Range	15 to 100 $\Omega$
Capacitance Range	10 to 100pF
Absolute Tolerance (R)	$\pm 10\%$
Absolute Tolerance (C)	$\pm 20\%$
Operating Temperature Range	-55°C to 125°C
Power Rating/Resistor	100mW
Storage Temperature	-60°C to 150°C
Package Power Rating	1W, MAX

TYPICAL VALUES					
Part Number	Resistor		Capacitor		Breakdown Voltage (MAX)
	Value ( $\Omega$ )	Tolerance	Value (pF)	Tolerance	
PRC298	33 $\Omega$	$\pm 10\%$	47pF	$\pm 20\%$	25V
PRC298	47 $\Omega$	$\pm 10\%$	47pF	$\pm 20\%$	25V
PRC298	47 $\Omega$	$\pm 10\%$	33pF	$\pm 20\%$	25V
PRC298	50 $\Omega$	$\pm 10\%$	68pF	$\pm 20\%$	25V
PRC298	75 $\Omega$	$\pm 10\%$	50pF	$\pm 20\%$	25V
PRC298	100 $\Omega$	$\pm 10\%$	100pF	$\pm 20\%$	10V
PRC298	40 $\Omega$	$\pm 10\%$	50pF	$\pm 20\%$	25V
PRC299	33 $\Omega$	$\pm 10\%$	47pF	$\pm 20\%$	45V
PRC299	47 $\Omega$	$\pm 10\%$	47pF	$\pm 20\%$	45V
PRC299	47 $\Omega$	$\pm 10\%$	33pF	$\pm 20\%$	45V
PRC299	50 $\Omega$	$\pm 10\%$	68pF	$\pm 20\%$	45V
PRC299	75 $\Omega$	$\pm 10\%$	50pF	$\pm 20\%$	45V
PRC299	100 $\Omega$	$\pm 10\%$	100pF	$\pm 20\%$	10V
PRC299	40 $\Omega$	$\pm 10\%$	50pF	$\pm 20\%$	45V
PRC299	50 $\Omega$	$\pm 10\%$	100pF	$\pm 20\%$	10V
PRC299	50 $\Omega$	$\pm 10\%$	68pF	$\pm 10\%$	45V
PRC299	47 $\Omega$	$\pm 5\%$	47pF	$\pm 20\%$	45V
PRC299	50 $\Omega$	$\pm 20\%$	100pF	$\pm 20\%$	10V
PRC299	33 $\Omega$	$\pm 5\%$	47pF	$\pm 20\%$	45V



## Part Number Key

