

D

## RDB SERIES

### Differential Terminator Network

Differential terminators are used to terminate differential-type SCSI bus lines. Data signals transmitted at high speed and high frequencies generate reflections and a ringing effect, requiring impedance matching along the signal path. A differential terminator can be used to eliminate transmission line effects with a combination of standard resistors matching the characteristic impedance of the transmission line. KOA's silicon based thin film networks provide exceptional stability and offer reliable performance at high frequencies.

#### Features

- Multiple terminating lines per package
- Thin film on silicon
- Excellent stability over time, temperature and high frequencies
- Cost-effective alternative to discrete components
- Space saving surface mount network

#### Applications

- Differential SCSI termination
- SCSI host adapter cards and other SCSI devices

#### Electrical Characteristics

*Resistance Range* . . . . . 10Ω to 1MΩ

*Resistance Tolerance* . . . Standard: ±5%, ±2%, ±1%

*T.C.R.* . . . . . Standard: ±100 ppm/°C

*Tracking TCR* . . . . . Typical: ±10 ppm/°C

*Operating*

*Temperature Range* . . . -55°C to +125°C

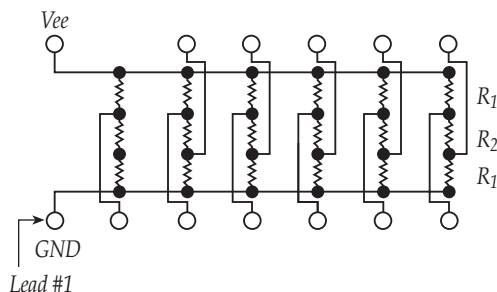
*Storage*

*Temperature Range* . . . -65°C to +150°C

*Power Rating*

@ 70°C . . . . . 100mW per resistor

#### Circuit Schematic



#### Available Pin Configurations

*n* = Number of Pins

See physical configurations on page D-11 for available pin/package configurations.

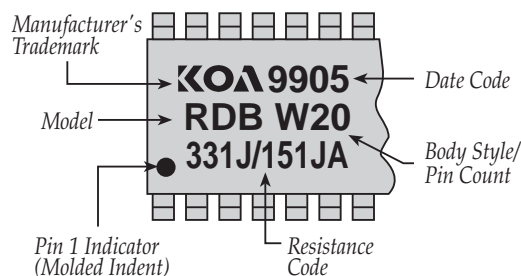
## Physical Configurations

<i>Body Style</i>	<i>Resistance Pin Count</i>
Narrow SOIC .....	16, 20
Wide SOIC .....	16, 20
QSOP .....	16, 20, 24
Die Pack * .....	8, 14, 16, 20, 24

## Mechanical Characteristics

<i>Item</i>	<i>Material</i>
Substrate .....	Silicon
Resistor material .....	TaN/NiCr
Passivation .....	Glass

## Part Marking



\* See page J-6 for Die Pack specifications.

## Ordering Information

<b>RDB</b>	<b>W</b>	<b>20</b>	<b>H</b>	<b>B</b>	<b>331J/151J</b>
<i>Circuit Type</i>	<i>Body Style</i>	<i>Number of Pins</i>	<i>T.C.R.</i>	<i>Packaging</i>	<i>Resistance Value</i>
RDB-Differential Terminator Network	N = Narrow SOIC W = Wide SOIC Q = QSOP	16-24 See above table	H = $\pm 100$ ppm/ $^{\circ}$ C	B = 13" Embossed Plastic Tape & Reel, see Packaging Section for details	2 significant digits + the number of zeros followed by the tolerance J = $\pm 5\%$ G = $\pm 2\%$ F = $\pm 1\%$
	6 = 0.6 mm Die Pack 5 = 0.5 mm Die Pack 4 = 0.4 mm Die Pack				