

Features

- RoHS compliant*
- 18 RC terminators tied to a common node
- Stable thin-film-on-silicon technology
- Ultra-miniature packages to JEDEC standards

Applications

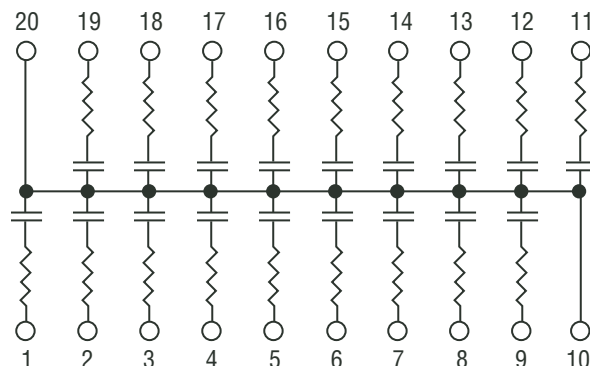
- High-speed bus termination
- Low power consumption
- Ideal for space-constrained applications

Thin Film on Silicon 2CTA AC Terminator x 18

General Information

The AC Terminator is used to provide termination for clock and data lines where transmission line effects would otherwise cause wave reflections or signal ringing. These Silicon-based, Tantalum-Nitride resistors and capacitors feature excellent stability, temperature coefficients and tracking performance. This product series conforms to JEDEC standards.

Package Schematic



Electrical & Environmental Characteristics

Electrical Characteristics	Symbol	Minimum	Nominal	Maximum	Unit
Resistance Range	R	33		100	Ω
Resistor Tolerance			$\pm 10\%$		Ω
Power Rating per Resistor @ 70 °C				0.1	Watt
Capacitor Range	C	33		180	pF
Capacitor Tolerance			$\pm 20\%$		pF
Capacitor Breakdown Voltage		25	35		V
Operating Voltage				50	V
Environmental Characteristics					
ESD		2 K			V
Operating Temperature	T_J	-55		+125	$^{\circ}\text{C}$
Storage Temperature	T_{stg}	-65		+150	$^{\circ}\text{C}$
Power Rating per Package @ 70 °C				1.0	Watt

*RoHS Directive 2002/95/EC Jan 27 2003 including Annex

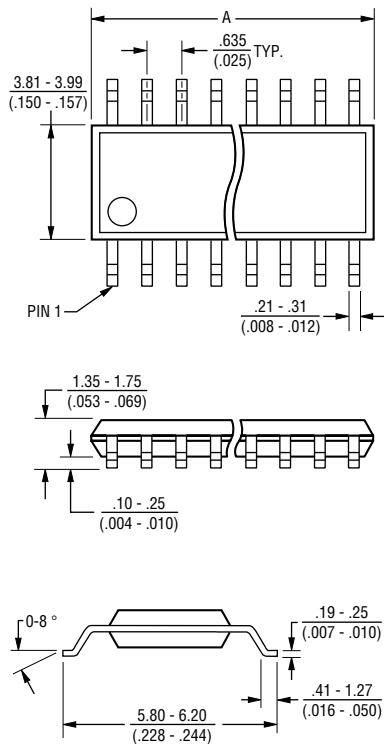
Specifications are subject to change without notice.
Customers should verify actual device performance in their specific applications.

Thin Film on Silicon 2CTA AC Terminator x 18

BOURNS®

Mechanical Characteristics

QSOP Package Dimensions

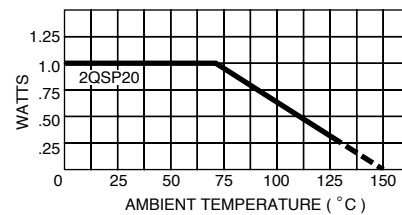


Model	A
2QSP20	8.56 - 8.74 (.337 - .344)

Governing dimensions are in mm. Dimensions in parentheses are in inches and are approximate.

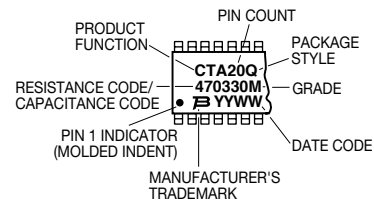
JEDEC Reference Number MO-137.

QSOP Package Power Temperature Derating Curve



Typical Part Marking

Represents total content. Layout may vary.



Standard RC Values

R1 Value (ohms)	C1 Value (pF)	Cap. BV (typ.)	Part Number (Tape & Reel)	Part Number (Tubes)
100	100	25	2CTA101101MQ20R	2CTA101101MQ20T
33	47	50	2CTA330470MQ20R	2CTA330470MQ20T
47	47	50	2CTA470470MQ20R	2CTA470470MQ20T

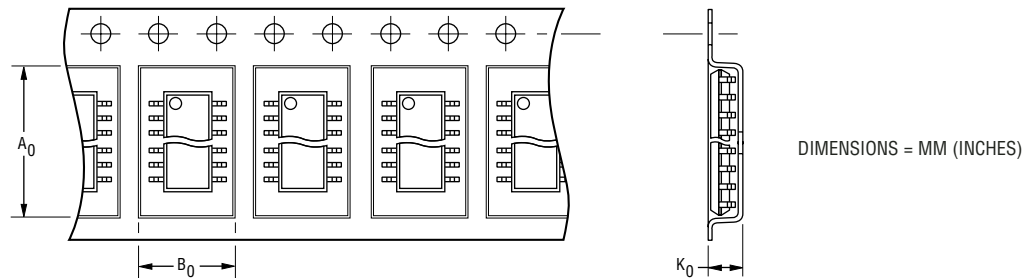
Specifications are subject to change without notice. Customers should verify actual device performance in their specific applications.

Thin Film on Silicon 2CTA AC Terminator x 18

BOURNS®

Dispensing

For large quantities, the product will be dispensed in Tape and Reel (see diagram below).



Package	A ₀	B ₀	K ₀	Width	Pitch	No. of Pieces per 13 reel	No. of Pieces per tube
QSOP 20 Pin	6.5 (0.256)	9.0 (0.354)	2.1 (0.083)	16 (0.630)	8 (0.315)	3,500	56

How To Order

2 CTA101 101 M Q 20 R LF

- Product Class _____
Thin-Film-on-Silicon
- Product Function _____
CTA = AC Terminator x 18
- Resistance Value Code _____
1st two digits are significant,
3rd digit = number of zeros to follow
to give resistance value in ohms.
- Capacitance Code _____
1st two digits are significant,
3rd digit = number of zeros to follow
to give capacitor value in pF.
- Standard Grade _____
R Tol. C Tol.
M = ±10 % ±20 %
- Standard Package Style _____
Q = QSOP
- Pin Count _____
Q = 20
- Dispensing _____
R = Reel
T = Tube
- Terminations _____
LF = 100 % Sn (RoHS Compliant)



Reliable Electronic Solutions

Asia-Pacific:
Tel: +886-2 2562-4117 • Fax: +886-2 2562-4116
Europe:
Tel: +41-41 768 5555 • Fax: +41-41 768 5510
The Americas:
Tel: +1-951 781-5500 • Fax: +1-951 781-5700
www.bourns.com

05/07

Specifications are subject to change without notice.
Customers should verify actual device performance in their specific applications.