

Features

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

Applications

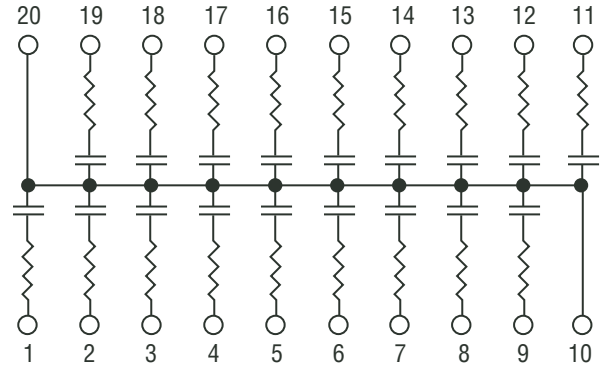
- High-speed bus termination
- Low power consumption
- Ideal for space-constrained applications

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

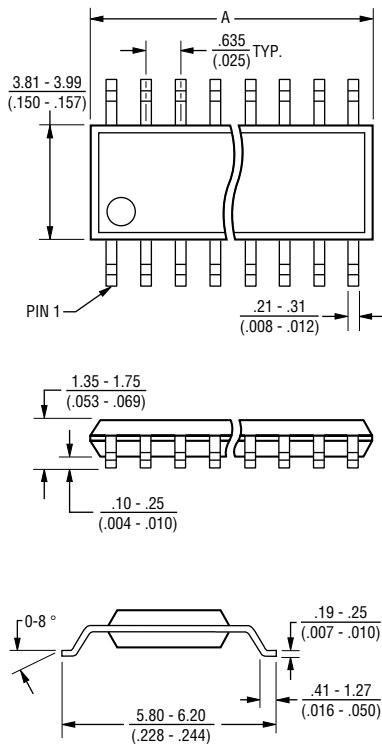
Specifications are subject to change without notice.
Customers should verify actual device performance in their specific applications.

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Mechanical Characteristics

QSOP Package Dimensions

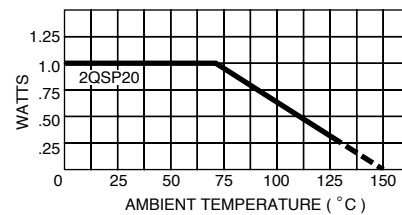


Model	A
2QSP20	8.56 - 8.74 (.337 - .344)

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

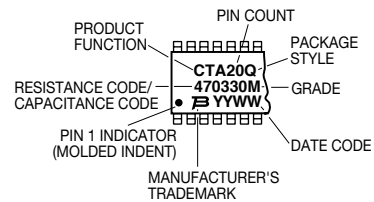
JEDEC Reference Number MO-137.

QSOP Package Power Temperature Derating Curve



Typical Part Marking

Represents total content. Layout may vary.



Standard RC Values

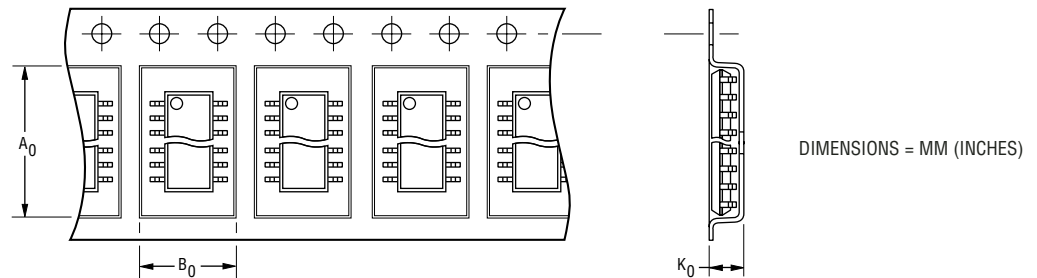
R1 Value (ohms)	C1 Value (pF)	Cap. BV (typ.)	Part Number (Tape & Reel)	Part Number (Tubes)
100	100	25	2CTA101101MQ20R	2CTA101101MQ20T
33	47	50	2CTA330470MQ20R	2CTA330470MQ20T
47	47	50	2CTA470470MQ20R	2CTA470470MQ20T

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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)



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