0505
1005
2010

ANX

2512
2525
3725

Features

Very high power dissipation

Thick film technology

AlN substrate material

Standard resistance value 50 ohms

Standard tolerance 5%

Tight TCRs

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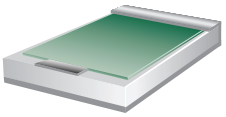
Thick Film High Power Chip Terminations on Aluminum Nitride

The ***ims*** ANX series of thick film high power chip terminations on aluminum nitride is ideal for most applications requiring high power dissipation in a small size package. AlN is an ideal replacement for BeO as it has very high power dissipation with no potential environmetal hazards. The "X" designation in each series is a variable that allows for specifying the termination metalization. Please see the ordering information on the back for instructions. Thick film technology provides a stable resistor at a very affordable price. These chip resistors have the following features:

- High stability thick film resistor element
- AlN substrate material
- Au (gold) terminations for wirebonding or epoxy attachment
- PtAg (platinum silver) terminations for epoxy or solder attachment[1]
- Standard tolerance 5%, other values available
- Available in bulk or on tape and reel

[1] ***ims*** recommends short duration soldering using 62/36/2 (Sn62) solder at 400°F (245°C).

Termination styles



SG - Single wrap with groundplane

Terminations available:

-1	Au
-3	PtAg

Various additional styles are available. Please contact factory.

Resistance Ranges

The standard resistance value is 50 ohms. Other values are available. Please contact the factory.

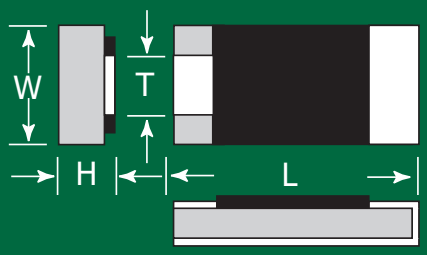
A Word About Thermal Management

Care must be taken when using chip resistors capable of dissipating large amounts of power. IMS' ANX power chips can dissipate large amounts of power for their size. Because of this, thermal management is **critical**. The CW power ratings listed for the chip resistors on this data sheet are measured using an infinite heatsink. Each chip handled the rated power and still performed well within its stated electrical parameters. Actual performance will depend upon the efficiency with which heat is extracted from the system.

Dimensions

Part Number	Length	Width	Height	Terminal
ANX-0505	.050″	.050″	.030″ max.	.050
ANX-1005	.100″	.050″	.030″ max.	.050
ANX-2010	.200″	.100″	.045″ max.	.050
ANX-2512	.250″	.120″	.045″ max.	.070
ANX-2525	.250″	.250″	.045″ max.	.070
ANX-3725	.375″	.250″	.045″ max.	.070

Additional sizes and thicknesses available. Please contact factory.



Specifications

Maximum Working Voltage

$E=\sqrt{PR}$

Rated power

Part Number	CW Power*
ANX-0505	20W
ANX-1005	40W
ANX-2010	60W
ANX-2512	70W
ANX-2525	150W
ANX-3725	250W

VSWR 1.3:1 or better @ 3 Ghz
1.2:1 or better @ 2 Ghz

* Rating is based upon a maximum film temperature of 150°C and a maximum heatsink temperature of 100°C. Power is based upon an infinite heatsink.

Ordering Information

Example: 50Ω, 5%, 40W, 1005 Single wrap resistor with groundplane

Example: AN3 - 1005SG- 50R0 J

AN

1 - Gold
3 - Platinum silver

Form factor
0505 1005
2010 2512
2525 3725
Add "SG" for single wrap with groundplane

Resistance value
The first three digits are significant values. The fourth is the number of zeroes following. The R indicates a decimal point for resistance values less than 100Ω.

Tolerance

J - 5%

Visit us on the Web - http://www.ims-resistors.com

High frequency partial wrap chip resistors and chip attenuators also available. Please see respective data sheets.

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