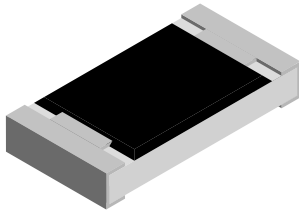


Thick Film, Rectangular Resistor/Capacitor Chip



FEATURES

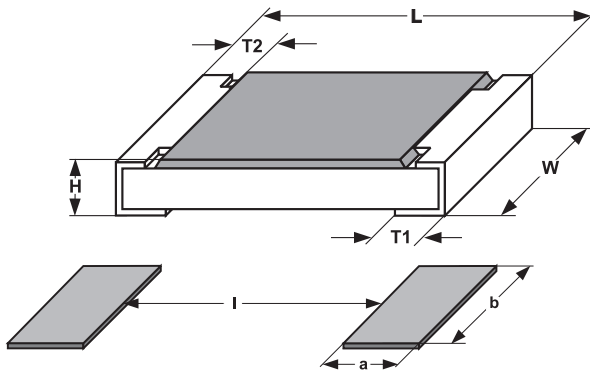
- Single component reduces board space and component counts
- Choice of Dielectric Characteristics X7R or Y5U
- Wrap around termination
- Thick film Resistor/Capacitor element
- Inner electrode protection
- Flow & Reflow solderable
- Automatic placement capability, standard size

STANDARD ELECTRICAL SPECIFICATIONS											
MODEL	SIZE		RESISTOR				CAPACITOR				
	INCH	METRIC	POWER RATING P _{70°C} W	TEMPERATURE COEFFICIENT ppm/°C	TOL %	VALUE RANGE Ω	DIELECTRIC	TEMPERATURE COEFFICIENT %	TOL %	VOLTAGE RATING VDC	VALUE RANGE pF
CRCC1206	1206	3216	0.125	200	5	10R – 1M0	X7R	± 15	20	50	10 - 270
CRCC1206	1206	3216	0.125	200	5	10R – 1M0	Y5U	+ 22, - 56	20	50	270 – 1800
RESISTOR						CAPACITOR					
<ul style="list-style-type: none"> • Operating Temperature Range: - 55°C to + 125°C • Technology: thick film 						<ul style="list-style-type: none"> • Operating Temperature Range: X7R - 55°C to + 125°C Y5U - 30°C to + 85°C • Maximum Dissipation Factor: 2.5% 					

- Packaging: see appropriate catalog or web page
- Power rating depends on the maximum temperature at the solder point, the component placement density and the substrate material

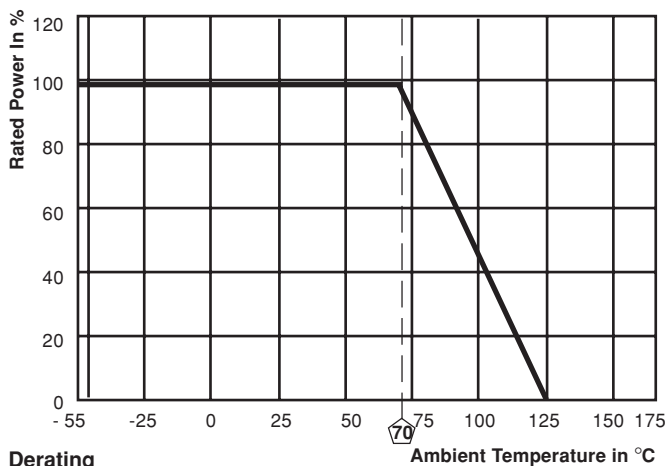
TECHNICAL SPECIFICATIONS				
PARAMETER	UNIT	RESISTOR	X7R CAPACITOR	Y5U CAPACITOR
Rated Dissipation at 70°C	W	0.125	–	–
Capacitor Voltage Rating	V	–	50	50
Dielectric Withstanding Voltage (5 seconds, 50mA Charge)	V _{dc}	–	125	125
Category Temperature Range	°C	- 55 / + 155	- 55 / + 125	- 30 / + 85
Insulation Resistance	Ω	> 10 ¹⁰	> 10 ¹⁰	> 10 ¹⁰
Weight / 1000 pieces	g	0.65	2	5.5

ORDERING INFORMATION					
CRCC1206	472	J	220	M	R02
MODEL	RESISTANCE VALUE Ω	RESISTANCE TOLERANCE	CAPACITOR VALUE pF	CAPACITOR TOLERANCE	PACKAGING
	First two digits are significant. Third digit is the multiplier	J = ± 5%	First two digits are significant. Third digit is the multiplier	M = ± 20%	Blister tape 4000pcs

DIMENSIONS


SIZE		DIMENSIONS [in millimeters]				
INCH	METRIC	L	W	H	T1	T2
1206	3216	3.2±0.15	1.6±0.15	0.55±0.15	0.5±0.25	0.5±0.25

SIZE		SOLDER PAD DIMENSIONS [in millimeters]					
		REFLOW SOLDERING			WAVE SOLDERING		
INCH	METRIC	a	b	l	a	b	l
1206	3216	0.9	1.7	2.0	1.1	1.7	2.2


SCHEMATIC


Derating

PERFORMANCE			
TEST	CONDITIONS OF TEST	TEST RESULTS	
		R	C
Endurance Test at 70°C MIL-Std-202 Method 108	1000 hours at 70°C, 1.5 hours "ON", 0.5 hours "OFF"	± (5 %+2Ω)	±20%
Dielectric Withstanding Voltage MIL-Std-202 Method 301	125Vdc, 5 seconds, 50mA charge	no physical damage	
Thermal Shock MIL-Std-202 Method 107	100 cycles, - 55 to + 125°C	± (5 %+2Ω)	±20%
Moisture MIL-Std-202 Method 106	Omit steps 7A and B	± (5 %+2Ω)	±20%
Resistance to Soldering Heat EIA 575	10 seconds at 260°C solder bath temperature	± (5 %+2Ω)	±20%
High Temperature Exposure EIA 575	125°C for 100 hours	± (5 %+2Ω)	±20%
Low Temperature Operation EIA 575	1 hour at - 55°C then 45 minutes at 50V	± (5 %+2Ω)	±20%
Solderability & Leaching EIA 575 3.12	Condition C	95% Coverage	

APPLICABLE SPECIFICATIONS
<ul style="list-style-type: none"> • IPC Standards • EIA 575