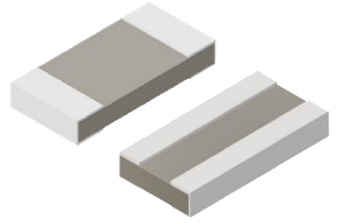


Features:

- Chip size from 0603 to 2512
- High thermal conductivity AlN substrate
- Low capacitance
- High insulation resistance between terminals
- RoHS compliant, REACH compliant, lead free, and halogen free



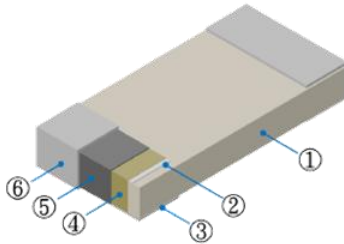
Electrical Specifications

Type/Code	Thermal Resistance (°C/W), R_t	Thermal Conductance (mW/°C), G_t	Dielectric Withstanding Voltage kV _{AC} , RMS (60 Hz)	Operating Temperature Range (°C)	Storage Temperature Range (°C)	Substrate Material
TMJ0603C_0048	21	48	> 1.5	-55°C to +155°C	-55°C to +155°C	Aluminum nitride (170 W/mK)
TMJ0612G_0216	5	216				
TMJ1206G_0055	18	55				
TMJ1225G_0216	5	216				
TMJ2512G_0053	19	53				

Note: $R_t = \frac{L}{k(H*W)}$; $G_t = 1/R_t$

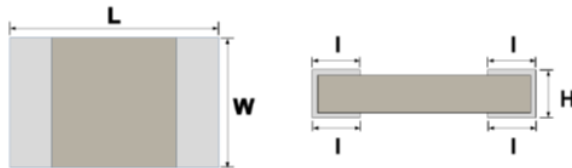
$k = 170 \text{ W/mK}$ (the thermal conductivity of AlN)

Construction Diagram



Reference	Description
1	Aluminum Nitride Substrate
2	Top Inner Electrode
3	Bottom Inner Electrode
4	Side Inner Electrode
5	Nickel Barrier
6	Solder Coating (Sn)

Mechanical Specifications



Type/Code	L	W	H	i	Unit
TMJ0603C_0048	0.063 ± 0.005 1.60 ± 0.13	0.031 ± 0.005 0.80 ± 0.13	0.022 ± 0.005 0.55 ± 0.13	0.016 ± 0.005 0.40 ± 0.13	inches mm
TMJ0612G_0216	0.063 ± 0.005 1.60 ± 0.13	0.126 ± 0.005 3.20 ± 0.13	0.028 ± 0.005 0.70 ± 0.13	0.016 ± 0.005 0.40 ± 0.13	inches mm
TMJ1206G_0055	0.126 ± 0.005 3.20 ± 0.13	0.063 ± 0.005 1.60 ± 0.13	0.028 ± 0.005 0.70 ± 0.13	0.020 ± 0.005 0.50 ± 0.13	inches mm
TMJ1225G_0216	0.126 ± 0.005 3.20 ± 0.13	0.252 ± 0.005 6.40 ± 0.13	0.028 ± 0.005 0.70 ± 0.13	0.024 ± 0.005 0.60 ± 0.13	inches mm
TMJ2512G_0053	0.252 ± 0.005 6.40 ± 0.13	0.126 ± 0.005 3.20 ± 0.13	0.028 ± 0.005 0.70 ± 0.13	0.024 ± 0.005 0.60 ± 0.13	inches mm

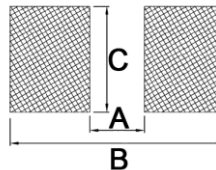
Performance Characteristics

Test	Test Method	Test Condition	Test Specification
Solderability	JIS-C-5201-1 4.17 IEC-60115-1 4.17	245 ± 5°C for 3 seconds	>95% coverage No visual damage
Terminal Strength (SMD)	AEC Q200-006	Pressurizing force for 60 seconds 0603: 9.8 N 0612, 1206, 1225, and 2512: 19.6 N	No visual damage
Bending Strength	JIS-C-5201-1 4.33 IEC-60115-1 4.33	Bending once for 5 seconds D: 0603 = 5 mm 1206 and 0612 = 3 mm 2512 and 1225 = 2 mm	No visual damage
Temperature Cycling	JIS-C-5201-1 4.19 IEC-60115-1 4.19	1000 cycles (-55 to +155°C) Measurement at 24 ± 4 hours after test conclusion. 30 minutes maximum dwell time at each temperature extreme	No visual damage
Hot Plate Test	Stackpole test	Place the chip directly on a hot plate at 260°C for 30 seconds. The sample should remain stable on the hot plate.	No visual damage No obvious movement of the part

Typical Characteristics

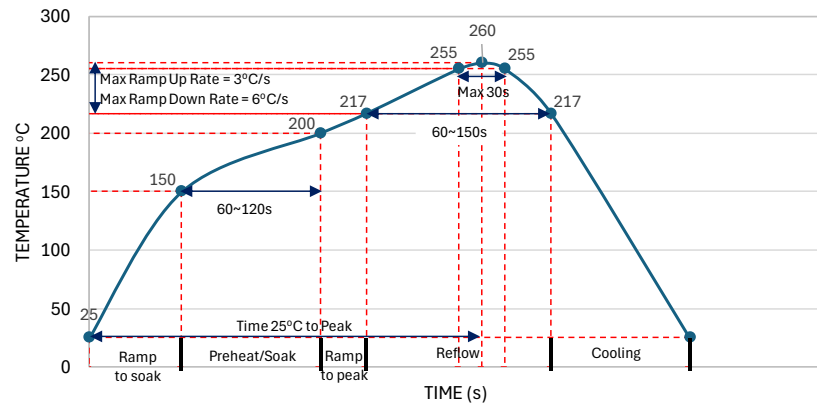
Case Size	0603	0612	1206	1225	2512
Capacitance (pF)	0.067 pF	0.115 pF	0.057 pF	0.097 pF	0.048 pF

Recommended Pad Layout

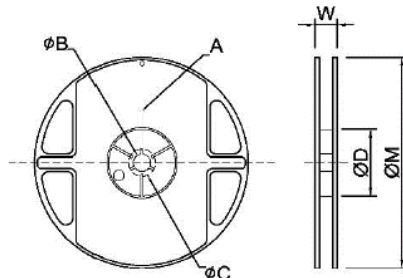


Type/Code	A	B	C
TMJ0603C_0048	0.031 0.78	0.094 2.40	0.039 1.00
TMJ0612G_0216	0.024 0.60	0.102 2.60	0.138 3.50
TMJ1206G_0055	0.083 2.10	0.165 4.20	0.071 1.80
TMJ1225G_0216	0.079 2.00	0.177 4.50	0.276 7.00
TMJ2512G_0053	0.197 5.00	0.319 8.10	0.134 3.40

Recommended Resistor Reflow Profile

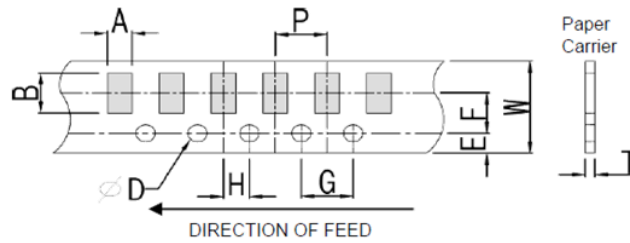


Reel Specifications



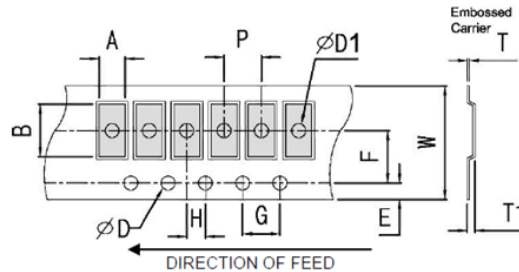
Size	A	ØB	ØC	ØD	W	ØM	Unit
0603, 0612, 1206	0.079 ± 0.020 2.00 ± 0.50	0.531 ± 0.039 13.50 ± 1.00	0.827 ± 0.039 21.00 ± 1.00	2.362 ± 0.039 60.00 ± 1.00	0.453 ± 0.079 11.50 ± 2.00	7.008 ± 0.079 178.00 ± 2.00	inches mm
2512, 1225	0.079 ± 0.020 2.00 ± 0.50	0.531 ± 0.039 13.50 ± 1.00	0.827 ± 0.039 21.00 ± 1.00	2.362 ± 0.039 60.00 ± 1.00	0.630 ± 0.079 16.00 ± 2.00	7.008 ± 0.079 178.00 ± 2.00	inches mm

Taping Specifications - Paper Tape



Size	A	B	W	E	F	Unit
0603	0.041 ± 0.008 1.05 ± 0.20	0.071 ± 0.008 1.80 ± 0.20	0.315 ± 0.008 8.00 ± 0.20	0.069 ± 0.004 1.75 ± 0.10	0.138 ± 0.002 3.50 ± 0.05	inches mm
0612	0.075 ± 0.008 1.90 ± 0.20	0.120 ± 0.008 3.05 ± 0.20	0.315 ± 0.008 8.00 ± 0.20	0.069 ± 0.004 1.75 ± 0.10	0.138 ± 0.002 3.50 ± 0.05	inches mm
1206	0.075 ± 0.008 1.90 ± 0.20	0.138 ± 0.008 3.50 ± 0.20	0.315 ± 0.008 8.00 ± 0.20	0.069 ± 0.004 1.75 ± 0.10	0.138 ± 0.002 3.50 ± 0.05	inches mm
Type/Code	G	H	T	ØD	P	Unit
0603	0.157 ± 0.004 4.00 ± 0.10	0.079 ± 0.002 2.00 ± 0.05	0.024 ± 0.004 0.60 ± 0.10	0.059 +0.004/-0.00 1.50 +0.10/-0.00	0.157 ± 0.004 4.00 ± 0.10	inches mm
0612	0.157 ± 0.004 4.00 ± 0.10	0.079 ± 0.002 2.00 ± 0.05	0.030 ± 0.004 0.75 ± 0.10	0.059 +0.004/-0.00 1.50 +0.10/-0.00	0.157 ± 0.004 4.00 ± 0.10	inches mm
1206	0.157 ± 0.004 4.00 ± 0.10	0.079 ± 0.002 2.00 ± 0.05	0.030 ± 0.004 0.75 ± 0.10	0.059 +0.004/-0.00 1.50 +0.10/-0.00	0.157 ± 0.004 4.00 ± 0.10	inches mm

Taping Specifications - Plastic Tape



Size	A	B	W	E	F	G	Unit
1225, 2512	0.134 ± 0.008 3.40 ± 0.20	0.264 ± 0.008 6.70 ± 0.20	0.472 ± 0.004 12.00 ± 0.10	0.069 ± 0.004 1.75 ± 0.10	0.217 ± 0.002 5.50 ± 0.05	0.157 ± 0.004 4.00 ± 0.10	inches mm
	H	T	ØD	ØD1	T1	P	Unit
	0.079 ± 0.002 2.00 ± 0.05	0.009 ± 0.004 0.23 ± 0.10	0.059 +0.004/-0.00 1.50 +0.10/-0.00	0.059 ± 0.004 1.50 ± 0.10	0.033 ± 0.006 0.85 ± 0.15	0.157 ± 0.004 4.00 ± 0.10	inches mm

RoHS Compliance

Stackpole Electronics has joined the worldwide effort to reduce the amount of lead in electronic components and to meet the various regulatory requirements now prevalent, such as the European Union's directive regarding "Restrictions on Hazardous Substances" (RoHS 3). As part of this ongoing program, we periodically update this document with the status regarding the availability of our compliant components. All our standard part numbers are compliant to EU Directive 2011/65/EU of the European Parliament as amended by Directive (EU) 2015/863/EU as regards the list of restricted substances.

RoHS Compliance Status				
Standard Product Series	Description	Package / Termination Type	Standard Series RoHS Compliant	Lead-Free Termination Composition
TMJ	Surface Mount Thermal Jumper Chip Component	SMD	YES	100% Matte Sn over Ni

"Conflict Metals" Commitment

We at Stackpole Electronics, Inc. are joined with our industry in opposing the use of metals mined in the "conflict region" of the eastern Democratic Republic of the Congo (DRC) in our products. Recognizing that the supply chain for metals used in the electronics industry is very complex, we work closely with our own suppliers to verify to the extent possible that the materials and products we supply do not contain metals sourced from this conflict region. As such, we are in compliance with the requirements of Dodd-Frank Act regarding Conflict Minerals.

Compliance to "REACH"

We certify that all passive components supplied by Stackpole Electronics, Inc. are SVHC (Substances of Very High Concern) free and compliant with the requirements of EU Directive 1907/2006/EC, "The Registration, Evaluation, Authorization and Restriction of Chemicals", otherwise referred to as REACH. Contact us for complete list of REACH Substance Candidate List.

Environmental Policy

It is the policy of Stackpole Electronics, Inc. (SEI) to protect the environment in all localities in which we operate. We continually strive to improve our effect on the environment. We observe all applicable laws and regulations regarding the protection of our environment and all requests related to the environment to which we have agreed. We are committed to the prevention of all forms of pollution.

How to Order

T	M	J	1	2	0	6	G	T	0	0	5	5
Product Series		Size	Thickness		Packaging				Thermal Conductance			
TMJ	Thermal SMD Jumper	Size	Code	mm	Code	Description	Size	Quantity	Code	mW		
		0603	C	0.5	T	Paper Tape	0603, 0612, 1206	5000	0048	48mW		
		0612	G	0.635		Plastic Tape	1225, 2512	4000	0053	53mW		
		1206			K	Paper Tape	0603, 0612, 1206	1000	0055	55mW		
		1225				Plastic Tape	1225, 2512		0216	216mW		
		2512										