RMEF / RMEP Series

General Purpose and High Power Thick Film Chip Resistor
100% RoHS Compliant Without Exemption

Stackpole Electronics, Inc.
Resistive Product Solutions

Features:

- RMEF – standard power ratings
- RMEP – high power ratings
- Nickel barrier terminations standard
- Power derating from 100% at 70ºC to zero at +155ºC
- RoHS compliant, REACH compliant, lead free, and halogen free
- AEC-Q200 compliant

Electrical Specifications - RMEF

Type/Code	Power Rating (W) @ 70ºC	Max. Working Voltage (V)	Max. Overload Voltage (V)	Max. Jumper Current (A)	TCR (ppm/ºC)	Ohmic Range (Ω) and Tolerance (1)	
						1%	5%
RMEF0402	0.063	50	100	1	± 400	1 - 9.76	
					± 100	10 - 10M	
RMEF0603	0.1	75	150	1	± 100	1 - 10M	
RMEF0805	0.125	150	300	2	± 100	1 - 10M	
RMEF1206	0.25	200	400	2	± 100	1 - 10M	
RMEF1210	0.5			3	± 100	1 - 10M	
RMEF1812	0.75			3	± 100	1 - 10M	
RMEF2010	0.75			3	± 100	1 - 10M	
RMEF2512	1			3	± 100	1 - 10M	

(1) Tighter tolerances available. Contact Stackpole Electronics.
Operating temperature range is -55 to +155ºC

Electrical Specifications - RMEP

Type/Code	Power Rating (W) @ 70ºC	Max. Working Voltage (V)	Max. Overload Voltage (V)	TCR (ppm/ºC)	Ohmic Range (Ω) and Tolerance	
					0.1%, 0.5%	1%, 5%, 10%
RMEP0402	0.1	50	100	± 400	-	1 - 9.76
				± 250	1 - 97.6K	10 - 97.6K
				± 100	100K - 1M	100K - 30M
RMEP0603	0.125	75	150	± 100	-	1 - 9.76
				± 250	1 - 97.6K	10 - 97.6K
				± 100	100K - 1M	100K - 30M
RMEP0805	0.25	150	300	± 100	-	1 - 9.76
				± 200	1 - 97.6K	10 - 97.6K
				± 100	100K - 1M	100K - 30M
RMEP1206	0.5	200	400	± 100	-	1 - 9.76
				± 200	1 - 97.6K	10 - 97.6K
				± 100	100K - 1M	100K - 30M
RMEP1210	0.66			± 100	-	1 - 9.76
				± 200	1 - 97.6K	10 - 97.6K
				± 100	100K - 1M	100K - 30M
RMEP1812	1			± 100	-	1 - 9.76
				± 200	1 - 97.6K	10 - 97.6K
				± 100	100K - 1M	100K - 10M
RMEP2010	1			± 100	-	1 - 9.76
				± 200	1 - 97.6K	10 - 97.6K
				± 100	100K - 1M	100K - 30M
RMEP2512	2			± 100	-	1 - 9.76
				± 200	1 - 97.6K	10 - 97.6K
				± 100	100K - 1M	100K - 30M

Operating temperature range is -55 to +155ºC

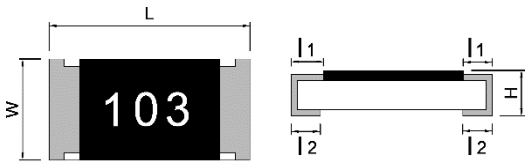
Jumper Electrical Specifications – RMEF

Type/Code	Max Overload Current (A) <1 second and 1 time	Jumper Resistance Value (Ω)
RMEF0402	3	0.05 Max.
RMEF0603		
RMEF0805		
RMEF1206	10	
RMEF1210		
RMEF2010		
RMEF2512		

Jumper Electrical Specifications - RMEP

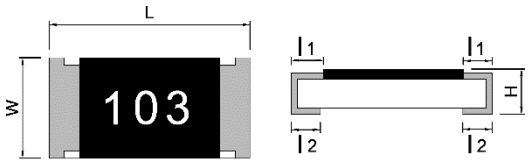
Type/Code	Max Overload Current (A) <1 second and 1 time	Jumper Rated Current (A)	Jumper Resistance Value (Ω)
RMEP0402	6	1.8	0.02 Max.
RMEP0603	9	2.5	
RMEP0805	13	3.5	
RMEP1206	16	4.4	
RMEP1210	19	5.2	
RMEP1812	22	6	
RMEP2010	22	6	
RMEP2512	30	8	

Mechanical Specifications - RMEF



Type/Code	L	W	H	I_1	I_2	Unit
RMEF0402	0.039 ± 0.0039 1.00 ± 0.10	0.020 ± 0.0020 0.50 ± 0.05	0.012 ± 0.0020 0.30 ± 0.05	0.006 ± 0.004 0.15 ± 0.10	0.008 ± 0.004 0.20 ± 0.10	inches mm
RMEF0603	0.063 ± 0.008 1.60 ± 0.20	0.031 ± 0.006 0.80 ± 0.15	0.016 ± 0.004 0.40 ± 0.10	0.012 ± 0.008 0.30 ± 0.20	0.012 ± 0.004 0.30 ± 0.10	inches mm
RMEF0805	0.079 ± 0.008 2.00 ± 0.20	0.049 ± 0.006 1.25 ± 0.15	0.020 ± 0.006 0.50 ± 0.15	0.012 ± 0.006 0.30 ± 0.15	0.016 ± 0.006 0.40 ± 0.15	inches mm
RMEF1206	0.120 ± 0.004 3.05 ± 0.10	0.063 ± 0.008 1.60 ± 0.20	0.022 ± 0.006 0.55 ± 0.15	0.016 ± 0.008 0.40 ± 0.20	0.020 ± 0.008 0.50 ± 0.20	inches mm
RMEF1210	0.120 ± 0.004 3.05 ± 0.10	0.098 ± 0.008 2.50 ± 0.20	0.022 ± 0.006 0.55 ± 0.15	0.020 ± 0.008 0.50 ± 0.20	0.020 ± 0.008 0.50 ± 0.20	inches mm
RMEF1812	0.177 ± 0.004 4.50 ± 0.10	0.122 ± 0.008 3.10 ± 0.20	0.022 ± 0.002 0.55 ± 0.05	0.022 ± 0.008 0.55 ± 0.20	0.028 ± 0.008 0.70 ± 0.20	inches mm
RMEF2010	0.197 ± 0.008 5.00 ± 0.20	0.098 ± 0.008 2.50 ± 0.20	0.022 ± 0.004 0.55 ± 0.10	0.024 ± 0.008 0.60 ± 0.20	0.024 ± 0.008 0.60 ± 0.20	inches mm
RMEF2512	0.248 ± 0.008 6.30 ± 0.20	0.126 ± 0.008 3.20 ± 0.20	0.022 ± 0.004 0.55 ± 0.10	0.024 ± 0.008 0.60 ± 0.20	0.024 ± 0.008 0.60 ± 0.20	inches mm

Mechanical Specifications - RMEP



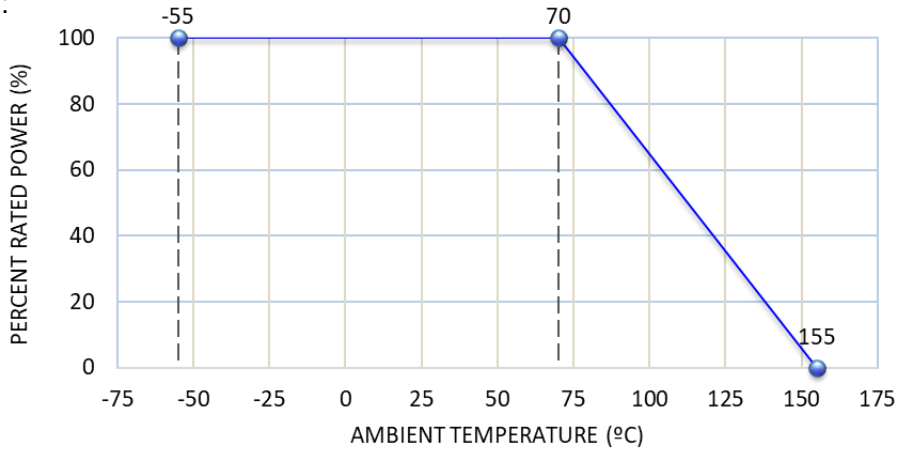
Type/Code	L	W	H	I_1	I_2	Unit
RMEP0402	0.039 ± 0.0020 1.00 ± 0.05	0.020 ± 0.0020 0.50 ± 0.05	0.012 ± 0.0020 0.30 ± 0.05	0.006 ± 0.004 0.15 ± 0.10	0.008 ± 0.004 0.20 ± 0.10	inches mm
RMEP0603	0.063 ± 0.004 1.60 ± 0.10	0.031 ± 0.004 0.80 ± 0.10	0.016 ± 0.004 0.40 ± 0.10	0.012 ± 0.008 0.30 ± 0.20	0.012 ± 0.004 0.30 ± 0.10	inches mm
RMEP0805	0.079 ± 0.004 2.00 ± 0.10	0.049 ± 0.004 1.25 ± 0.10	0.020 ± 0.006 0.50 ± 0.15	0.012 ± 0.006 0.30 ± 0.15	0.016 ± 0.006 0.40 ± 0.15	inches mm
RMEP1206	0.120 ± 0.004 3.05 ± 0.10	0.063 ± 0.004 1.60 ± 0.10	0.022 ± 0.006 0.55 ± 0.15	0.016 ± 0.008 0.40 ± 0.20	0.020 ± 0.008 0.50 ± 0.20	inches mm
RMEP1210	0.120 ± 0.004 3.05 ± 0.10	0.098 ± 0.006 2.50 ± 0.15	0.022 ± 0.006 0.55 ± 0.15	0.020 ± 0.008 0.50 ± 0.20	0.020 ± 0.008 0.50 ± 0.20	inches mm
RMEP1812	0.177 ± 0.004 4.50 ± 0.10	0.122 ± 0.006 3.10 ± 0.15	0.022 ± 0.006 0.55 ± 0.15	0.022 ± 0.008 0.55 ± 0.20	0.028 ± 0.008 0.70 ± 0.20	inches mm
RMEP2010	0.197 ± 0.004 5.00 ± 0.10	0.098 ± 0.006 2.50 ± 0.15	0.022 ± 0.006 0.55 ± 0.15	0.024 ± 0.008 0.60 ± 0.20	0.024 ± 0.008 0.60 ± 0.20	inches mm
RMEP2512	0.248 ± 0.004 6.30 ± 0.10	0.126 ± 0.006 3.20 ± 0.15	0.026 ± 0.006 0.65 ± 0.15	0.024 ± 0.012 0.60 ± 0.30	0.024 ± 0.012 0.60 ± 0.30	inches mm

Performance Characteristics

Test	Test Method	Procedure	Requirements
Temperature Coefficient of Resistance (TCR)	JIS-C-5201-1 4.8 IEC-60115-1 4.8	At 25/-55ºC and 25ºC/+155ºC, 25ºC is the reference temperature	As per specification
RMEF Short Time Overload	JIS-C-5201-1 4.13 IEC-60115-1 4.13	2.5 times RCWV or Max. overload voltage whichever is less for 5 seconds. Jumper: Overload current for 5 seconds 0402/0603/0805 = 2.5A 1206/1210/1812/2010/2512 = 5A	1% and below: ± (1 + 0.05Ω) 5%: ± (2% + 0.1Ω) RMEF Jumper: Max 0.05Ω after test RMEP Jumper: Max 0.02Ω after test
RMEP Short Time Overload		2.5 times RCWV or Max. overload voltage whichever is less for 2 seconds. Jumper: Overload current for 5 seconds 0402=13A, 1812=15A, 2010=15A, 2512=20A	
Leaching	JIS-C-5201-1 4.18 IEC-60068-2-58 8.2.1	260 ± 5ºC for 30 seconds	Individual leaching area ≤ 5% Total leaching area ≤ 10%
Resistance to Soldering Heat	JIS-C-5201-1 4.18 IEC-60115-1 4.18	260 ± 5ºC for 10 seconds	1% and below: ± (0.5% + 0.05Ω) 5%: ± (1% + 0.05Ω)
Rapid Change of Temperature	JIS-C-5201-1 4.19 IEC-60115-1 4.19	-55ºC to +155ºC, 5 cycles	1% and below: ± (0.5% + 0.05Ω) RMEF 5%: ± (1% + 0.05Ω) RMEP 5%: ± (1% + 0.1Ω)
Resistance to Solvent	JIS-C-5201-1 4.29	The tested resistor is immersed into isopropyl alcohol of 20~25ºC for 60 seconds. Then the resistor is left in the room for 48 hours.	All tolerances: ± (0.5% + 0.05Ω) RMEF Jumper: Max. 0.05Ω after test RMEP Jumper: Max. 0.02Ω after test
Damp Heat with Load	JIS-C-5201-1 4.24 IEC-60115-1 4.24	40 ± 2ºC, 90~95% R.H. RCWV or Max working voltage whichever is less for 1000 hours with 1.5 hours "ON" and 0.5 hour "OFF".	1% and below: ± (1% + 0.05Ω) 5%: ± (2% + 0.05Ω) RMEF Jumper: Max. 0.1Ω after test RMEP Jumper: Max. 0.05Ω after test
Load Life (Endurance)	JIS-C-5201-1 4.25 IEC-60115-1 4.25.1	70 ± 2ºC, RCWV or Max working voltage whichever is less for 1000 hours with 1.5 hours "ON" and 0.5 hour "OFF"	1% and below: ± (1% + 0.05Ω) 5%: ± (3% + 0.05Ω) RMEF Jumper: Max. 0.1Ω after test RMEP Jumper: Max. 0.05Ω after test

Performance Characteristics (cont.)			
Test	Test Method	Procedure	Requirements
Insulation Resistance	JIS-C-5201-1 4.6 IEC-60115-1 4.6	Apply 100 VDC for 1 minute.	≥ 10GΩ
RMEF Bending Strength	JIS-C-5201-1 4.33 IEC-60115-1 4.33	Bending once for 5 seconds D: 0402, 0603, 0805 = 5 mm 1206, 1210, 1812 = 3 mm 2010, 2512 = 2 mm	± (1% + 0.05Ω)

Power Derating Curve:

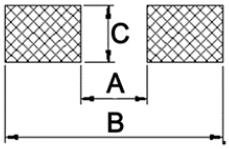


Power rating or current rating is in the case based on continuous full-load at ambient temperature of 70ºC. For operation at ambient temperature in excess of 70ºC, the load should be derated in accordance with figure of derating curve.

Voltage Rating or Current Rating
Resistance range ≥ 1Ω
Rated Voltage: The resistor shall have a DC continuous working voltage of a RMS AC continuous working voltage at commercial line frequency and have form corresponding to the power rating, as determined formula as following:

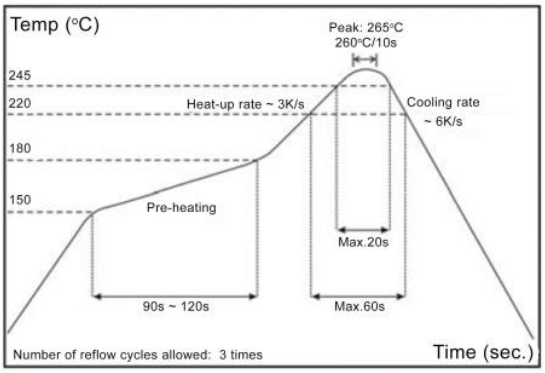
$E(RCWV) = \sqrt{PxR}$ E=Rated voltage (V)
P=Power rating (W)
R=Nominal resistance (Ω)

Recommended Pad Layout

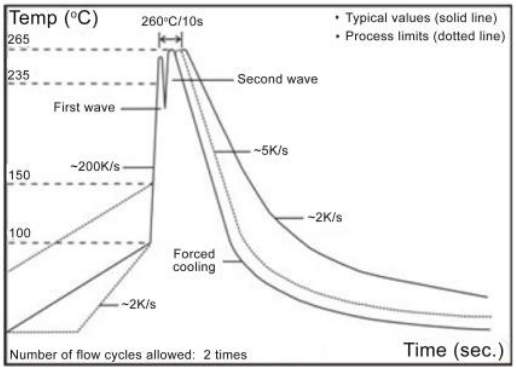


Size	A	B	C	Unit
0402	0.024 0.60	0.063 1.60	0.028 0.70	inches mm
0603	0.031 0.80	0.094 2.40	0.039 1.00	inches mm
0805	0.051 1.30	0.114 2.90	0.055 1.40	inches mm
1206	0.087 2.20	0.165 4.20	0.067 1.70	inches mm
1210	0.079 2.00	0.173 4.40	0.106 2.70	inches mm
1812	0.122 3.11	0.233 5.91	0.118 3.00	inches mm
2010	0.150 3.80	0.260 6.60	0.106 2.70	inches mm
2512	0.193 4.90	0.319 8.10	0.134 3.40	inches mm

Recommended Solder Profile



Reflow Soldering



Wave Soldering (Flow Soldering)

Rework temperature (hot air equipment): 350ºC, 3~5 seconds
Recommended reflow methods: IR, vapor phase oven, hot air oven
If reflow temperatures exceed the recommended profile, devices may not meet the performance requirements.

Repetitive Pulse Information

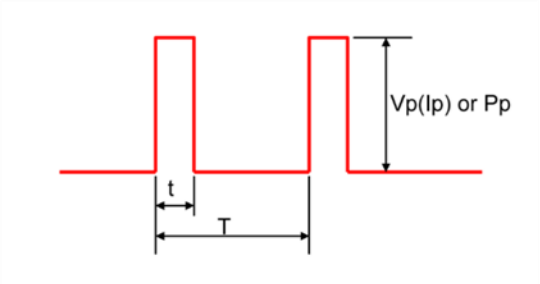
(This information is for reference only and is not guaranteed performance.)

If repetitive pulses are applied to resistors, pulse wave form must be less than "Pulse Limiting Voltage", "Pulse Limiting Current" or "Pulse Limiting Wattage" calculated by the formula below.

$Vp = K\sqrt{PxRxT/t}$

$Ip = K\sqrt{P/RxT/t}$

$Pp = K^2 xPxT/t$



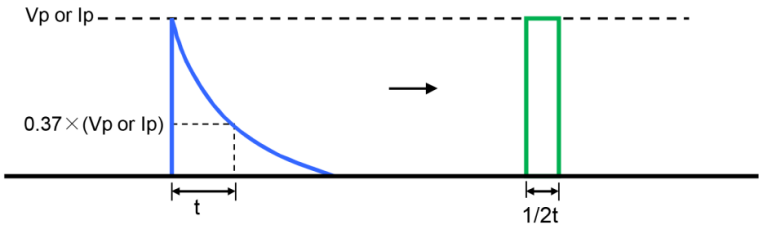
Where: Vp: Pulse limiting voltage (V)
Ip: Pulse limiting current (A)
Pp: Pulse limiting wattage (W)
P: Power rating (W)
R: Nominal resistance (ohm)
T: Repetitive period (sec)
t: Pulse duration (sec)
K: Coefficient by resistors type (refer to below matrix)
[Vr: Rated Voltage (V), Ir: Rated Current (A)]

Note 1: If T > 10 → T = 10 (sec), T/t > 1000 → T/t = 1000
Note 2: If T > 10 and T/t > 1000, "Pulse Limiting power (Single pulse) is applied
Note 3: If Vp < Vr (Ip < Ir or Pp < P), Vr (Ir, P) is Vp (Ip, Pp)
Note 4: Pulse limiting voltage (current, wattage) is applied at less than rated ambient temperature. If ambient temperature is more than the rated temperature (70°C), please decrease power rating according to "Power Derating Curve"
Note 5: Please assure sufficient margin for use period and conditions for "Pulse Limiting Voltage"
Note 6: If the pulse waveform is not square wave, please judge after transform the waveform into square wave according to the "Waveform Transformation to Square Wave".

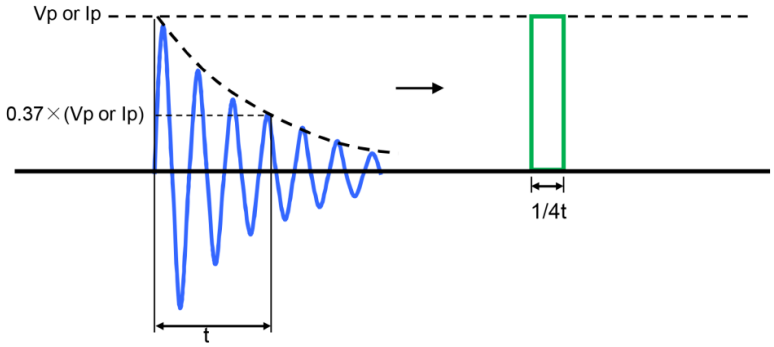
Coefficient (K) Matrix	
Ohmic Value	K
R < 10Ω	0.50
10Ω ≤ R < 100Ω	0.45
100Ω ≤ R < 1KΩ	0.35
1KΩ ≤ R < 10KΩ	0.25
10KΩ ≤ R	0.20

Waveform Transformation to Square Wave

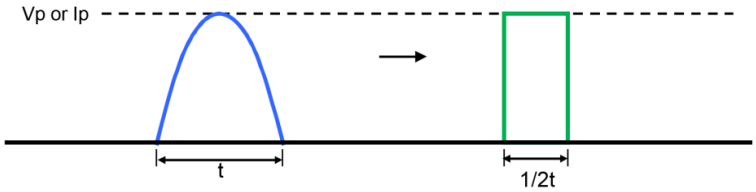
1. Discharge curve wave with time constant "t" → Square wave



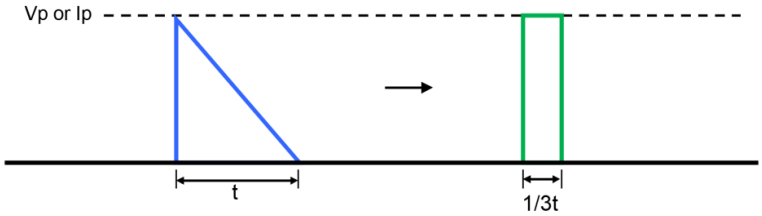
2. Damping oscillation wave with time constant of envelope "t" → Square wave



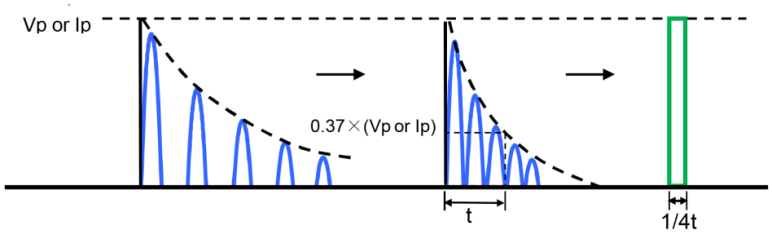
3. Half-wave rectification wave → Square wave



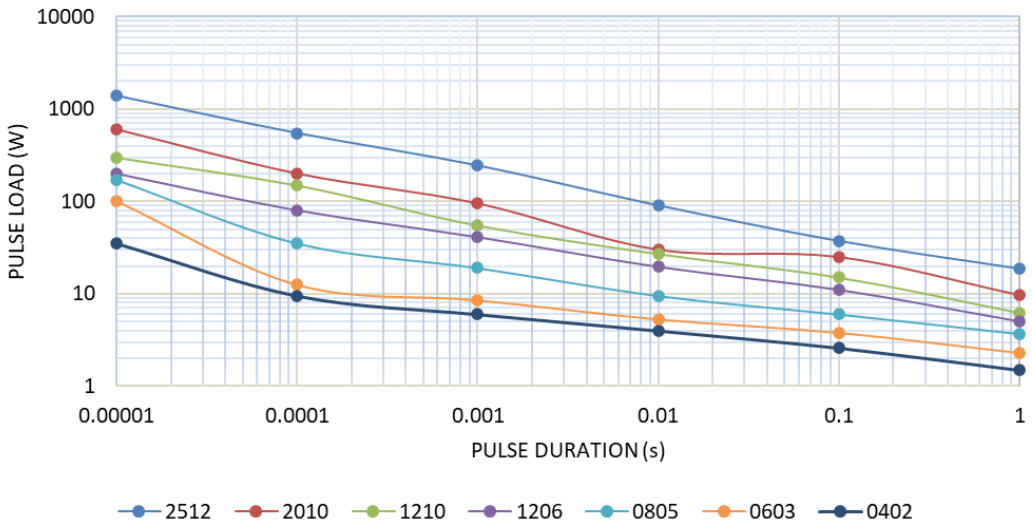
4. Triangular wave → Square wave



5. Special wave → Square wave

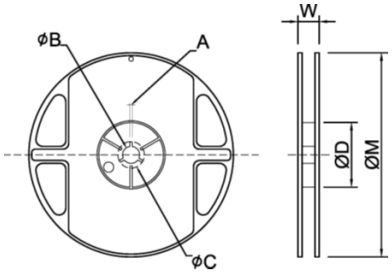


RMEF Single Pulse Power



The data provided is for reference only. It is typical performance for this product but it is not guaranteed. The actual pulse handling of each individual resistor may vary depending on a variety of factors including resistance tolerance and resistance value. Stackpole Electronics, Inc. assumes no liability for the use of this information. Customers should validate the performance of these products in their applications.
Contact Stackpole to discuss specific pulse application requirements.

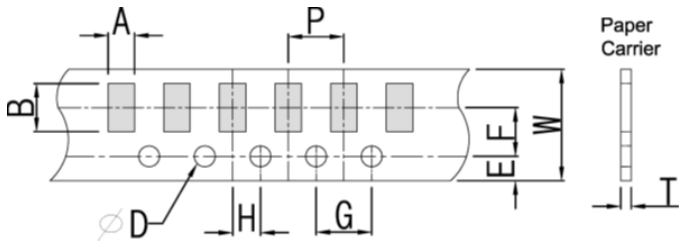
Reel Specifications



Type	Size(*)		A	ØB	ØC	ØD	W	ØM	Unit
0402	7"	10 K/Reel	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
0603, 0805, 1206, 1210	7"	5 K/Reel					0.453 ± 0.079 11.50 ± 2.00		inches mm
2010, 2512, 1812	7"	4 K/Reel					0.630 ± 0.079 16.00 ± 2.00		inches mm

(*) Larger reel sizes may be available. Contact Stackpole Electronics.

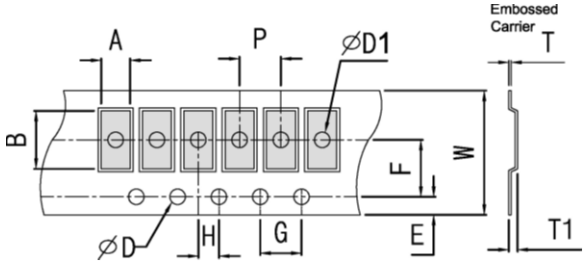
Taping Specifications – Paper Tape



Size	A	B	W	E	F	Unit
0402	0.028 ± 0.004 0.70 ± 0.10	0.047 ± 0.004 1.20 ± 0.10	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
0603	0.041 ± 0.008 1.05 ± 0.20	0.071 ± 0.008 1.80 ± 0.20				inches mm
0805	0.061 ± 0.008 1.55 ± 0.20	0.091 ± 0.008 2.30 ± 0.20				inches mm
1206	0.075 ± 0.008 1.90 ± 0.20	0.138 ± 0.008 3.50 ± 0.20				inches mm
1210	0.112 ± 0.008 2.85 ± 0.20	0.138 ± 0.008 3.50 ± 0.20				inches mm

Size	G	H	T	ØD	P	Unit
0402	0.157 ± 0.004 4.00 ± 0.10	0.079 ± 0.002 2.00 ± 0.05	0.018 ± 0.004 0.45 ± 0.10	0.059 +0.004/-0 1.50 +0.10/-0	0.079 ± 0.004 2.00 ± 0.10	inches mm
0603			0.024 ± 0.004 0.60 ± 0.10		0.157 ± 0.004 4.00 ± 0.10	inches mm
0805			0.030 ± 0.004 0.75 ± 0.10			inches mm
1206			0.030 ± 0.004 0.75 ± 0.10			inches mm
1210			0.030 ± 0.004 0.75 ± 0.10			inches mm

Taping Specifications – Plastic Tape



Size	A	B	W	E	F	G	Unit
2010	0.110 ± 0.008 2.80 ± 0.20	0.220 ± 0.008 5.60 ± 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
2512	0.134 ± 0.008 3.40 ± 0.20	0.264 ± 0.008 6.70 ± 0.20					inches mm
1812	0.130 ± 0.008 3.30 ± 0.20	0.181 ± 0.008 4.60 ± 0.20					inches mm

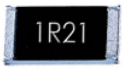
Taping Specifications – Plastic Tape (cont.)							
Size	H	T	ØD	ØD1	T1	P	Unit
2010	0.079 ± 0.002 2.00 ± 0.05	0.009 ± 0.004 0.23 ± 0.10	0.059 +0.004/-0 1.50 +0.10/-0	0.059 ± 0.004 1.50 ± 0.10	0.033 ± 0.006 0.85 ± 0.15	0.157 ± 0.004 4.00 ± 0.10	inches mm
RMEF2512					0.033 ± 0.006 0.85 ± 0.15		inches mm
RMEP2512					0.037 ± 0.006 0.95 ± 0.15		inches mm
1812					0.033 ± 0.006 0.85 ± 0.15		inches mm

Part Marking Instructions

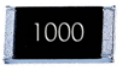
E96 and E24 Values for 0805-2512 (0.1%, 0.5% and 1% tolerances)

The nominal resistance is marked on the surface of the overcoating with the use of **four character markings**.

1. Values <100Ω will use "R" as the decimal holder.



1.21Ω



100Ω

E24 Values for 0805-2512 (5% and 10% tolerances)

The nominal resistance is marked on the surface of the overcoating with the use of **three character markings**.

1. Values between 1Ω and 9.1Ω will use "R" as the decimal holder.

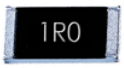
1Ω

1.2 KΩ

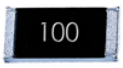
E24 Values for 0603

The nominal resistance is marked on the surface of the overcoating with the use of **three character markings**.

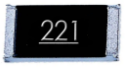
1. Values between 1Ω and 9.1Ω will use "R" as the decimal holder.
2. 5% tolerance is not underlined. 1% tolerance is underlinded. (Effective date for 1% underline marking is April 1, 2025.
3. Values that are both E24 and E96 follow E96 marking rules.



1Ω 5%



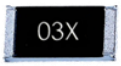
10Ω 5%



220Ω 1%

E96 Values for 0603 size (0.1%, 0.5% and 1% tolerances)

A two character number is assigned to each standard R-Value (E96) as shown in the chart below. This is followed by one alpha character which is used as a multiplier. Each letter from "Y" - "F" represents a specific multiplier.



10.5Ω

Alpha Character = Multiplier		Chip Marking = Value
Y = 0.1	C = 1000	01Y = 10.0 x 0.1 = 1Ω
X = 1	D = 10000	01B = 10.0 x 100 = 1KΩ
A = 10	E = 100000	25C = 17.8 x 1000 = 17.8KΩ
B = 100	F = 1000000	01F = 10.0 x 100000 = 10MΩ

E96

#	R-Value	#	R-Value	#	R-Value	#	R-Value	#	R-Value	#	R-Value
01	10.0	**17**	14.7	**33**	21.5	**49**	31.6	**65**	46.4	**81**	68.1
02	10.2	**18**	15.0	**34**	22.1	**50**	32.4	**66**	47.5	**82**	69.8
03	10.5	**19**	15.4	**35**	22.6	**51**	33.2	**67**	48.7	**83**	71.5
04	10.7	**20**	15.8	**36**	23.2	**52**	34.0	**68**	49.9	**84**	73.2
05	11.0	**21**	16.2	**37**	23.7	**53**	34.8	**69**	51.1	**85**	75.0
06	11.3	**22**	16.5	**38**	24.3	**54**	35.7	**70**	52.3	**86**	76.8
07	11.5	**23**	16.9	**39**	24.9	**55**	36.5	**71**	53.6	**87**	78.7
08	11.8	**24**	17.4	**40**	25.5	**56**	37.4	**72**	54.9	**88**	80.6
09	12.1	**25**	17.8	**41**	26.1	**57**	38.3	**73**	56.2	**89**	82.5
10	12.4	**26**	18.2	**42**	26.7	**58**	39.2	**74**	57.6	**90**	84.5
11	12.7	**27**	18.7	**43**	27.4	**59**	40.2	**75**	59.0	**91**	86.6
12	13.0	**28**	19.1	**44**	28.0	**60**	41.2	**76**	60.4	**92**	88.7
13	13.3	**29**	19.6	**45**	28.7	**61**	42.2	**77**	61.9	**93**	90.9
14	13.7	**30**	20.0	**46**	29.4	**62**	43.2	**78**	63.4	**94**	93.1
15	14.0	**31**	20.5	**47**	30.1	**63**	44.2	**79**	64.9	**95**	95.3
16	14.3	**32**	21.0	**48**	30.9	**64**	45.3	**80**	66.5	**96**	97.6

Note: 0402 resistors are not marked.

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	Lead-Free Mfg. Effective Date (Std Product Series)	Lead-Free Effective Date Code (YY/WW)
RMEF	General Purpose Thick Film Surface Mount Chip Resistor 100% Lead Free	SMD	YES	100% Matte Sn over Ni	Always	Always
RMEP	Thick Film High Power Surface Mount Chip Resistor 100% Lead Free	SMD	YES	100% Matte Sn over Ni	Always	Always

"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 - RMEF

R	M	E	F	0	6	0	3	J	T	1	0	R	0

Product Series	
Code	Description
RMEF	Thick Film Chip Resistor

Size	
Size	W
0402	0.063
0603	0.1
0805	0.125
1206	0.25
1210	0.5
1812	0.75
2010	0.75
2512	1

Tolerance		
Code	Tol	Value
F	1%	E96, E24
J	5%	E24
Z	Jumper	

Packaging (*)			
Code	Description	Size	Quantity
T	7" Reel Paper Tape	0402	10000
		0603, 0805 1206, 1210	5000
	7" Reel Plastic Tape	2010, 2512 1812	4000

(*) Larger reel sizes may be available.
Contact Stackpole Electronics.

Resistance Value
Four characters with the multiplier used as the decimal holder.
1 ohm = 1R00
10 ohm = 10R0
100 Kohm = 100K
1 Mohm = 1M00
Zero ohm jumper = 0R00

How to Order - RMEP

R	M	E	P	0	6	0	3	J	T	1	0	R	0

Product Series	
Code	Description
RMEP	Thick Film High Power

Size	
Size	W
0402	0.1
0603	0.125
0805	0.25
1206	0.5
1210	0.66
1812	1
2010	1
2512	2

Tolerance		
Code	Tol	Value
B	0.1%	E96, E24
D	0.5%	
F	1%	
J	5%	E24
K	10%	
Z	Jumper	

Packaging (*)			
Code	Description	Size	Quantity
T	7" Reel Paper Tape	0402	10000
		0603, 0805 1206, 1210	5000
	7" Reel Plastic Tape	2010, 2512 1812	4000

(*) Larger reel sizes may be available.
Contact Stackpole Electronics.

Resistance Value
Four characters with the multiplier used as the decimal holder.
1 ohm = 1R00
10 ohm = 10R0
100 Kohm = 100K
1 Mohm = 1M00
Zero ohm jumper = 0R00