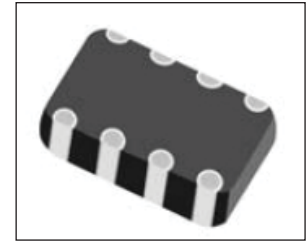


### FEATURES

- MULTILAYER CONSTRUCTION
- TRANSIENT VOLTAGE (ESD, I/O, EFT AND BURST) PROTECTION
- 4-ELEMENTS TO 8-ELEMENTS IN SINGLE PACKAGE
- REDUCED PCB SPACE AND ASSEMBLY COST
- R-C TERMINATOR CIRCUITS
- CASE SIZE 0805 & 0825 (2.05mm x 1.25mm)
- FOR TRANSIENT VOLTAGE AND EMI PROTECTION
- FAST RESPONSE (LESS THAN 0.5nS)
- LOW CLAMPING VOLTAGES
- REFLOW SOLDERING COMPATIBLE



\*1 -  $V_c$ , Maximum peak voltage across the varistor at 1 A, 8/20 $\mu$ s impulse current.

\*2 -  $V_c$ , Maximum peak voltage across the varistor measured at 30ns after initiation of pulse on IEC61000-4-2 30A/8KV.

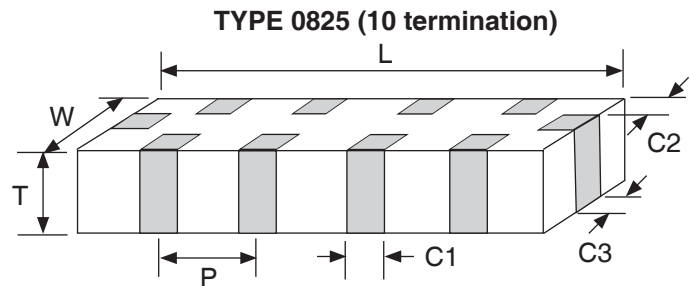
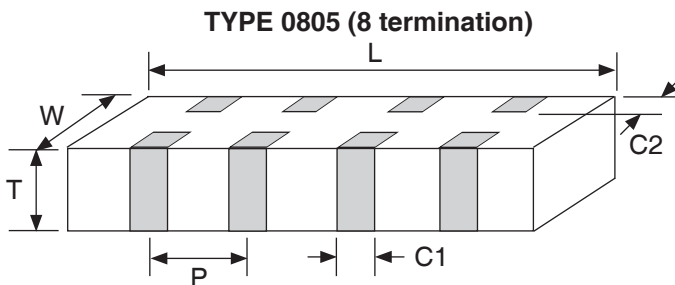
\*3 -  $I_p$ , Maximum peak current applied at 8/20 $\mu$ s surge impulse current without varistor failure.

Please specify the capacitance tolerance code (N= $\pm$ 30%, Y= $+100\%$ ~-50%).

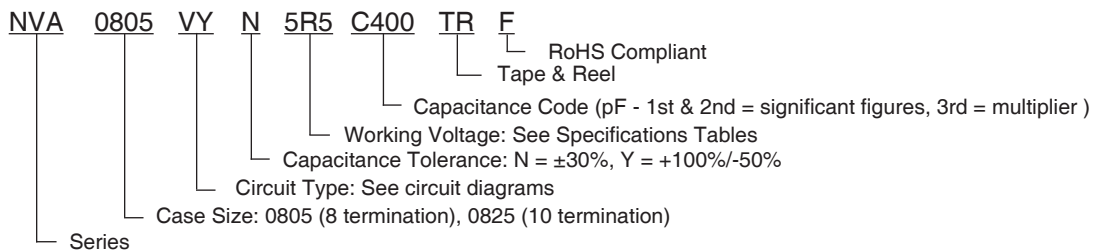
Inquiries for custom products are welcome, please contact local NIC sales personnel to review your requirements.

### CASE SIZE DIMENSIONS (mm)

Type	L	W	T	C1	C2	C3	P
NVA0805	2.05 $\pm$ 0.10	1.25 $\pm$ 0.10	0.85 $\pm$ 0.10	0.25 $\pm$ 0.10	0.20 $\pm$ 0.10	/	0.50 $\pm$ 0.10
NVA0825	2.05 $\pm$ 0.10	1.25 $\pm$ 0.10	0.85 $\pm$ 0.10	0.25 $\pm$ 0.10	0.20 $\pm$ 0.10	0.30 $\pm$ 0.10	0.50 $\pm$ 0.10



### PART NUMBERING SYSTEM

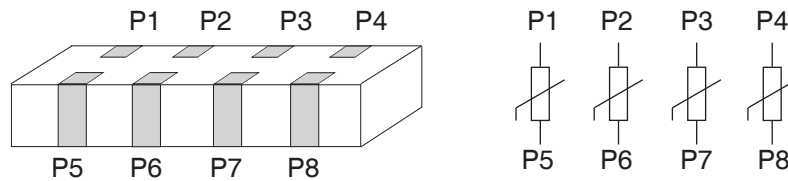


## NVA0805VY 8 TERMINATION, ISOLATED CIRCUIT

Part Number	Max. Working Voltage <20mA		Varistor Voltage @ 1mA DC (Volts)	Max. Clamping Voltage		Rated Single Pulse Transient Peak Current 8/20µs (Amps. <sub>3</sub> )	Typical Capacitance @ 0.5Vrms, 1MHz (pF)
	VDC	VAC RMS		8/20µs (Volts. <sub>1</sub> )	ESD (Volts. <sub>2</sub> )		
NVA0805VY_5R5C400TRF	5.5	4	10 ~ 14	18	23	5	40
NVA0805VY_140C100TRF	14	10	16 ~ 22	30	39	2	10
NVA0805VY_140C400TRF	14	10	16 ~ 22	30	39	5	40
NVA0805VY_140C700TRF	14	10	16 ~ 22	30	39	10	70
NVA0805VY_180C100TRF	18	12.7	22 ~ 28	40	48	2	10
NVA0805VY_180C150TRF	18	12.7	22 ~ 28	40	48	2	15

"\_" = Add Capacitance Tolerance: N = ±30%, Y = +100%/-50%

### NVA0805VY 8 TERMINATION ISOLATED CIRCUIT

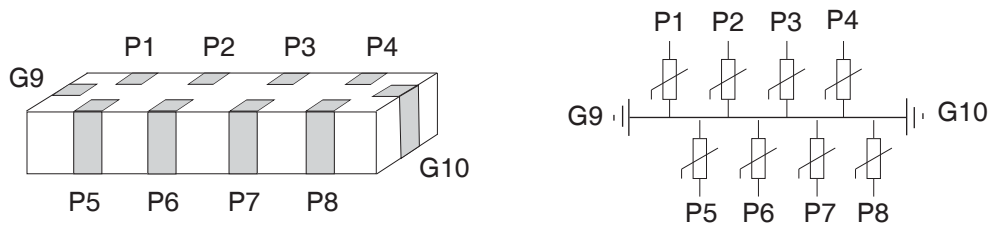


## NVA0825VZ, 10 TERMINATION, BUSSED CIRCUIT

Part Number	Max. Working Voltage <20mA		Varistor Voltage @ 1mA DC (Volts)	Max. Clamping Voltage		Rated Single Pulse Transient Peak Current 8/20µs (Amps. <sub>3</sub> )	Typical Capacitance @ 0.5Vrms, 1MHz (pF)
	VDC	VAC RMS		8/20µs (Volts. <sub>1</sub> )	ESD (Volts. <sub>2</sub> )		
NVA0825VZ_5R5C200TRF	5.5	4	10 ~ 14	18	23	3	20
NVA0825VZ_140C100TRF	14	10	16 ~ 22	30	39	2	10
NVA0825VZ_180C100TRF	18	12.7	22 ~ 28	40	48	2	10
NVA0825VZ_180C150TRF	18	12.7	22 ~ 28	40	48	2	15

"\_" = Add Capacitance Tolerance: N = ±30%, Y = +100%/-50%

### NVA0825VZ 10 TERMINATION BUSSED CIRCUIT

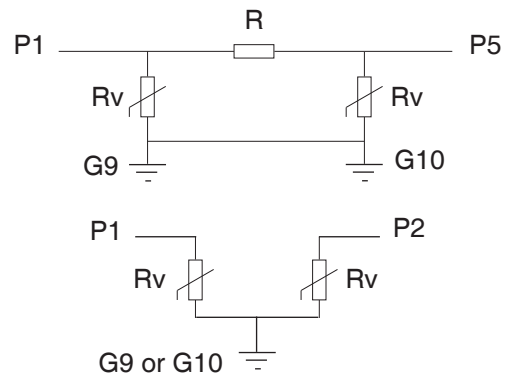
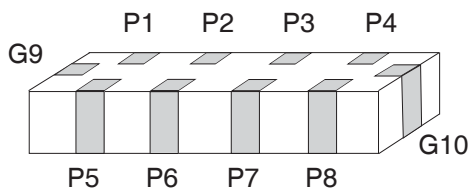


## NVA0825R\_ 10 TERMINATION, R-C CIRCUIT

Part Number	Max. Working Voltage <20mA		DC Resistance ( $\Omega$ )	Varistor Voltage @1mA DC (Volts)	Max. Clamping Voltage		Rated Single Pulse Transient Peak Current 8/20 $\mu$ s (Amps <sub>3</sub> )	Cut Off Frequency / fO	Typical Cap. @0.5Vrms, 1MHz (pF)
	VDC	VAC RMS			8/20 $\mu$ s (Volts <sub>1</sub> )	ESD (Volts <sub>2</sub> )			
NVA0825RC_5R5C500TRF	5.5	4	100 $\Omega$ $\pm$ 30%	10 ~ 14	18	23	10	50	50
NVA0825RA_140C100TRF	14	10	30 $\Omega$ $\pm$ 30%	16 ~ 22	30	39	2	100	10
NVA0825RB_140C100TRF	14	10	50 $\Omega$ $\pm$ 30%	16 ~ 22	30	39	2	100	10
NVA0825RC_140C100TRF	14	10	100 $\Omega$ $\pm$ 30%	16 ~ 22	30	39	2	100	10
NVA0825RD_140C100TRF	14	10	10 $\Omega$ $\pm$ 30%	16 ~ 22	30	39	2	100	10
NVA0825RA_180C150TRF	18	12.7	30 $\Omega$ $\pm$ 30%	22 ~ 28	40	48	2	100	15
NVA0825RB_180C150TRF	18	12.7	50 $\Omega$ $\pm$ 30%	22 ~ 28	40	48	2	100	15
NVA0825RC_180C150TRF	18	12.7	100 $\Omega$ $\pm$ 30%	22 ~ 28	40	48	2	100	15
NVA0825RD_180C150TRF	18	12.7	10 $\Omega$ $\pm$ 30%	22 ~ 28	40	48	2	100	15

"\_" = Add Capacitance Tolerance: N =  $\pm$ 30%, Y = +100%/-50%

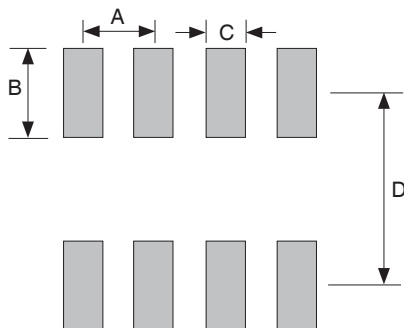
## NVA0825R\_ 10 TERMINATION R-C CIRCUIT



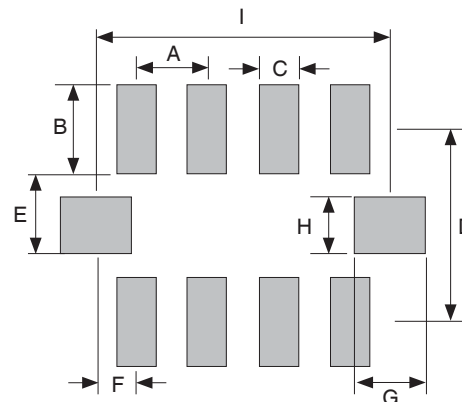
## RECOMMENDED LAND PATTERN DIMENSIONS (mm)

Type	A	B	C	D	E	F	G	H	I
NVA0805	0.28	0.625	0.5	1.37	/	/	/	/	/
NVA0825					0.575	0.20	0.50	0.40	1.90

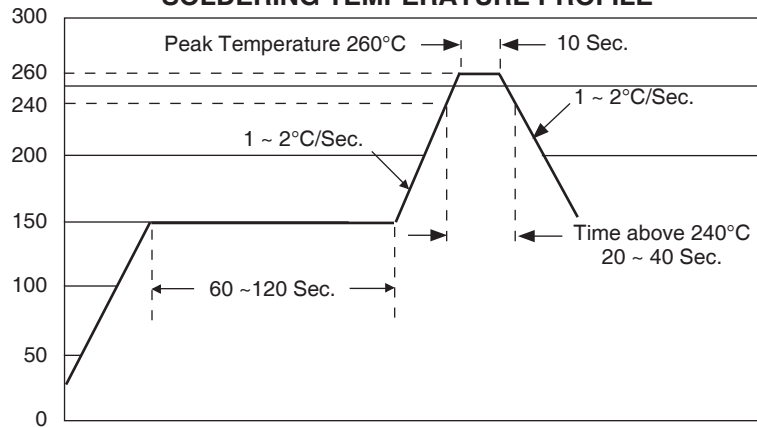
### NVA0805 8 TERMINATIONS



### NVA0825 10 TERMINATIONS



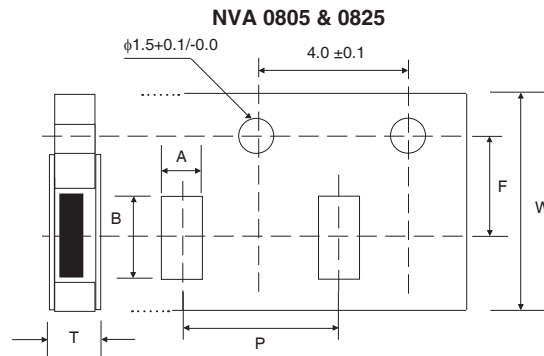
## RECOMMENDED REFLOW SOLDERING TEMPERATURE PROFILE



Note: 2 times maximum reflow

## CARRIER DIMENSIONS (mm) AND REEL QUANTITY

Type	A	B	P	T	F	W	Reel Quantity
NVA0805	1.50	2.30	4.00	1.10	3.5 ± 0.05	8.0 ± 0.3	4,000
NVA0825							



## REEL DIMENSIONS (mm)

A	B	C	W
178 ± 2.0	58 ± 2.0	13.5 ± 0.2	9.0 ± 1.5

