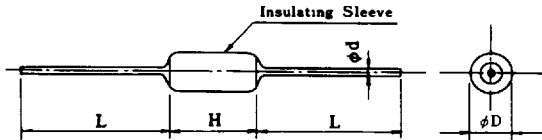


A-SERIES (High Varistor Voltage (Axial Lead Type))

Model Number	Maximum Applied Voltage (Continuous)	Maximum Peak Current (8/20 μ s)	Maximum Energy (2ms)	Rated Wattage	Maximum Clamping Voltage	Varistor Voltage at 1mA DC	H Max.	
4 A	DC V	AC Vrms	A	J	W	V _{2A}	V _{1mA}	mm
TNR4A122K	880	620		1 8	2,200	1,200 (1,080 - 1,320)	11MAX	
TNR4A152K	1,100	780	40/1Time	1 0	2,600	1,500 (1,350 - 1,650)	12MAX	
TNR4A182K	1,300	930	20/2Times	1 5	3,100	1,800 (1,620 - 1,980)	13MAX	
TNR4A202K	1,450	1,040		1 0	3,500	2,000 (1,800 - 2,200)	15MAX	
10A	DC V	AC Vrms	A	J	W	V _{2A}	V _{1mA}	mm
TNR10A472K	3,100	2,200		10	8,700	4,700 (4,230 - 5,170)	40MAX	
TNR10A562K	3,700	2,600		10	10,000	5,600 (5,040 - 6,160)	40MAX	
TNR10A682K	4,500	3,200	100/1Time	10	12,000	6,800 (6,120 - 7,480)	50MAX	
TNR10A822K	5,500	3,900	50/2Times	10	16,000	8,200 (7,380 - 9,020)	50MAX	
TNR10A103K	6,700	4,700		15	19,500	10,000 (9,000 - 11,000)	55MAX	
TNR10A123K	8,100	5,700		15	21,600	12,000 (10,800 - 13,200)	55MAX	



Type	4 A Type	10A Type
ϕD	4 \pm 1	10 \pm 1
L	25min	30min
ϕd	0.6	1

(mm)

MLV-SERIES (Multilayer Chip Type For Direct Surface Mounting)

"TNR" MH and MG Series

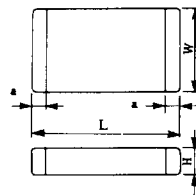
- Operating temperature range: -40° +125°C
- Storage temperature range: -50° +150°C

• Features

- Excellent clamping voltage characteristic and fast response time (<10 nsec.)
- Multilayer construction for small size.
- EIA standard packaging

• Applications:

- Load dump suppression in automotive or battery applications
- Surge suppression in automotive or battery applications
- Surge suppression for "LAN" and telecommunications applications



NOTE: Consult factory for a and H dimensions.

■MH Standard Ratings

Part Number	Varistor voltage		Max allowable voltage	Short time allowable voltage	Max clamping voltage	Max energy	Max peak current
	V _{1mA}	DC					
	(V)	(V)	(V)	(V), 5	8 \times 20 μ s	20ms	8 \times 20 μ s
TNR30MH270M	27 \pm 5	16	24 0	V0 5A = 43	1	25	(A)
TNR40MH270M	27 \pm 5	16	24 0	V1 5A = 43	2	50	(A)
TNR50MH270M	27 \pm 5	16	24 0	V2 5A = 43	5	150	(A)

■MGA Standard Ratings

Part Number	Max allowable voltage		Max peak current	Max energy	Max clamping voltage		Varistor voltages
	AC	DC			8 \times 20 μ s	2ms	
	(Vrms)	(V)	(A)	(J)	(A)	(V)	(V)
TNR30MGA12	6 0	8 5			22	12(10 - 14)	
TNR30MGA22	12 0	16 5	160	1 0	40	22(19 - 25)	
TNR30MGA33	20 0	26 0			55	33(30 - 39)	
TNR40MGA12	6 0	8 5			22	12(10 - 14)	
TNR40MGA22	12 0	16 5	315	2 0	40	22(19 - 25)	
TNR40MGA33	20 0	26 0			55	33(30 - 39)	

■MGB Standard Ratings

Part Number	Max allowable voltage		Max peak current	Max energy	Max clamping voltage		Varistor voltages
	AC	DC			8 \times 20 μ s	2ms	
	(Vrms)	(V)	(A)	(J)	(A)	(V)	(V)
TNR30MGB12	6 0	8 5			22	12(10 - 14)	
TNR30MGB22	12 0	16 5	80	1 0	40	22(19 - 25)	
TNR30MGB33	20 0	26 0			55	33(30 - 39)	
TNR40MGB12	6 0	8 5			22	12(10 - 14)	
TNR40MGB22	12 0	16 5	160	2 0	40	22(19 - 25)	
TNR40MGB33	20 0	26 0			55	33(30 - 39)	

Case Code

EIA	1206	1210	1812
Marcon Case	30	40	50

NOTE: Consult factory for larger case sizes, joule rates and voltages.

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