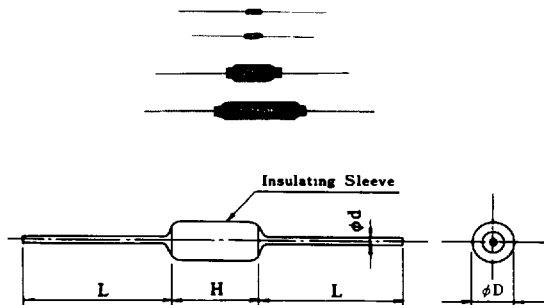


A-SERIES (High Varistor Voltage (Axial Lead Type))

Model Number	Maximum Applied Voltage (Continuous)	Maximum Peak Current (8/20µs)	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 _{0.1mA}	mm
TNR4A122K	880	620	1.8	0.05	2,200	1,200(1,080~1,320)	11MAX	
TNR4A152K	1,100	780	1.0		2,600	1,500(1,350~1,650)	12MAX	
TNR4A182K	1,300	930	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 _{0.1mA}	mm
TNR10A472K	3,100	2,200	10	0.5	8,700	4,700(4,230~5,170)	40MAX	
TNR10A562K	3,700	2,600	10		10,000	5,600(5,040~6,160)		
TNR10A682K	4,500	3,200	10		12,000	6,800(6,120~7,480)		
TNR10A822K	5,500	3,900	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)		



Type	4 A Type	10 A Type
φD	4 ± 1	10 ± 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

MH Standard Ratings

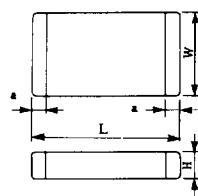
Part Number	Varistor voltage	Max allowable voltage	Short time allowable voltage	Max clamping voltage	Max energy	Max peak current
	V _{1mA}	DC	(V), 5	8 × 20µs	20ms	8 × 20µs
	(V)	(V)	(V), 5	(A)	(J)	(A)
TNR30MH270M	27 ± 5	16	24.0	V0.5A = 43	1	25
TNR40MH270M	27 ± 5	16	24.0	V1.5A = 43	2	50
TNR50MH270M	27 ± 5	16	24.0	V2.5A = 43	5	150

MGA Standard Ratings

Part Number	Max allowable voltage		Max peak current 8 × 20µs (A)	Max energy 2ms (J)	Max clamping voltage 8 × 20µs (V)		Varistor voltages V1mA (V)
	AC	DC					
	(Vrms)	(V)					
TNR30MGA12	6.0	8.5	160	1.0	2	22	12(10~14)
TNR30MGA22	12.0	16.5				40	22(19~25)
TNR30MGA33	20.0	26.0				55	33(30~39)
TNR40MGA12	6.0	8.5	315	2.0	5	22	12(10~14)
TNR40MGA22	12.0	16.5				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	8×20μs	2ms	8×20μs	V1mA	
	(Vrms)	(V)	(A)	(J)	(A)	(V)	
TNR30MGB.2	6.0	8.5	80	1.0	1	22	12(10~14)
TNR30MGB22	12.0	16.5				40	22(19~25)
TNR30MGB33	20.0	26.0				55	33(30~39)
TNR40MGB12	6.0	8.5	160	2.0	2.5	22	12(10~14)
TNR40MGB22	12.0	16.5				40	22(19~25)
TNR40MGB33	20.0	26.0				55	33(30~39)



NOTE: Consult factory for a and H dimensions.

Case Code

EIA	1206	1210	1812
Marcon Case	30	40	50

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