

## INTRODUCTION

NTC, or Negative Temperature Coefficient, Thermistors are typically used for in-rush current limiting and sensing applications. (As an NTC thermistors temperature increases its resistance decreases.) For in-rush applications this attribute is used to reduce current surges to circuits thereby reducing the probability of tripped circuit breakers and blown fuses or damage to motors or filaments. For sensing applications this attribute allows for the compensation of changes in circuit resistances brought about by variations in the ambient temperature.

## STANDARD MARKING

Minimum marking information shall consist of an abbreviated style designation, and when space is available, the manufacturer's initials

"MDC" or the company logo.

For example:

MDC  
503

Where:

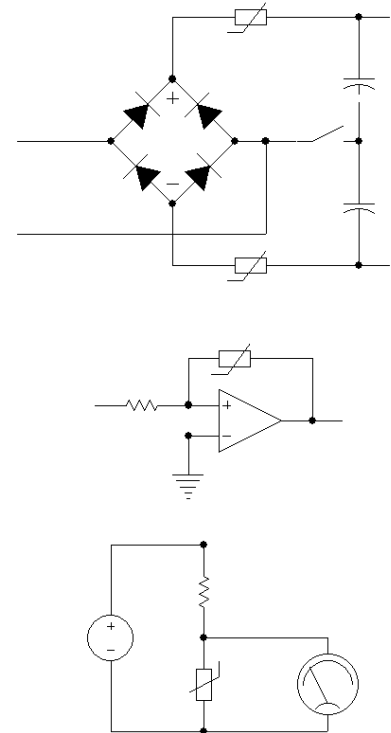
503 – Resistance Code: 50,000 ohms

## STYLE DESIGNATION

The following is the standard part numbering system when ordering our NTC Thermistor components:

- EX: M N 503 J -13
1. Maida Development Company
  2. Material Identifier  
 N – In-rush Current Limiter  
 S – Temperature Compensator  
 T – Chip w/ Long Lead Wires  
 D – Axial Leaded
  3. Resistance Code  
 two significant figures plus number of zeroes that follow, e.g. 503 is 50,000 ohms
  4. Tolerance Code  
 F – 1%  
 H – 3%  
 J – 5%  
 K – 10%
  5. Nominal Disk Diameter (mm)  
 NOTE: Not Applicable for MD series

## Common Uses



# NTC THERMISTOR SERIES

## SPECIFICATIONS

Maida Style Number	Nominal Resistance at 25°C	Maximum Steady State Current	Rated Power @ 25°C	Thermal Dissipation Constant	Thermal Time Constant	Nominal B Constant
	(Ohms)	(Amps)	(mW)	(mW/°C)	(Sec.)	(25°/85°C ±3%)
MN259M-7	2.5	3		9	35	2950
MN509M-7	5	3		9	35	3000
MN809M-7	8	2.5		9	35	2950
MN100M-7	10	2.3		9	32	3000
MN120M-7	12	2.3		10	30	3000
MN150M-7	15	2		12	30	3050
MN160M-7	16	2		12	30	3050
MN200M-7	20	1.5		10	32	3000
MN220M-7	22	1.5		10	32	3000
MN300M-7	30	1.5		10	32	3100
MN330M-7	33	1.5		10	32	3100
MN500M-7	50	1.2		8	28	3100
MN259M-9	2.5	4		11	42	2900
MN309M-9	3	4		11	42	2950
MN509M-9	5	3.8		11	42	2050
MN809M-9	8	3.5		12	43	3000
MN100M-9	10	3		12	50	2950
MN120M-9	12	3		12	40	3000
MN160M-9	16	2.5		11	44	3100
MN180M-9	18	2		10	46	3100
MN200M-9	20	2		10	46	3200
MN220M-9	22	2		10	46	3200
MN500M-9	50	1.4		10	44	3200
MN401M-9	400	1.2		9	25	3800
MN259M-11	2.5	5.3		12	44	2850
MN309M-11	3	5		12	45	2900
MN479M-11	4.7	4		13	45	2950
MN509M-11	5	4		13	45	2950
MN809M-11	8	3.5		14	45	3000
MN100M-11	10	3		14	45	3000
MN120M-11	12	3		14	48	3100
MN130M-11	13	3		14	48	3100
MN160M-11	16	2.8		14	50	3150
MN250M-11	25	2.5		13	53	3200
MN500M-11	50	2		12	55	3250
MN109M-13	1	6		13	43	2900
MN139M-13	1.3	6		13	38	3000
MN259M-13	2.5	5.5		14	45	2950
MN309M-13	3	5.3		14	45	3000
MN479M-13	4.7	5		14	70	3000
MN509M-13	5	5		15	70	3000
MN809M-13	8	4		16	65	3050
MN100M-13	10	3.8		17	60	2950
MN120M-13	12	3.8		17	60	2950
MN160M-13	16	3		19	55	3200
MN180M-13	18	2.8		18	60	3100
MN220M-13	22	2.5		17	60	3200
MN500M-13	50	2		15	75	3400
MN708M-15	0.7	10		20	65	2850

# NTC THERMISTOR SERIES

## SPECIFICATIONS

Maida Style Number	Nominal Resistance at 25°C	Maximum Steady State Current	Rated Power @ 25°C	Thermal Dissipation Constant	Thermal Time Constant	Nominal B Constant
	(Ohms)	(Amps)	(mW)	(mW/°C)	(Sec.)	(25°/85°C ±3%)
MN109M-15	1	7		19	102	2850
MN259M-15	2.5	7		21	63	2900
MN309M-15	3	6.7		21	70	2950
MN509M-15	5	6.5		20	75	3000
MN709M-15	7	6		20	76	3000
MN809M-15	8	5.5		20	78	3000
MN100M-15	10	5		19	80	3100
MN120M-15	12	4.5		18	82	3100
MN150M-15	15	4.5		17	86	3180
MN160M-15	16	4		17	87	3150
MN200M-15	20	3		15	90	3200
MN250M-15	25	2.8		15	90	3250
MN300M-15	30	2.5		16	95	3300
MN470M-15	47	2.5		16	95	3330
MN500M-15	50	2		16	97	3350
MN508M-22	0.5	16		24	107	2940
MN109M-22	1	16		24	107	2950
MN159M-22	1.5	14		25	106	2950
MN209M-22	2	10		23	105	2950
MN259M-22	2.5	8.5		23	105	2950
MN309M-22	3	8		24	100	3050
MN509M-22	5	6.7		25	85	3100
MN709M-22	7	6		27	87	3130
MN100M-22	10	5.5		29	90	3150
MN120M-22	12	5.3		30	92	3200
MN200M-22	20	4.8		29	105	3200
MN300M-22	30	2		28	115	3230
MN400M-22	40	1.5		27	95	3400
MN101M-22	100	1		24	105	3600
<b>MS Series</b>						
MS102J-2	1000		0.1	1.9	8	3500
MS202J-2	2000		0.1	2	8	3550
MS302J-2	3000		0.1	2	8	3750
MS402J-2	4000		0.1	2	8	3800
MS472J-2	4700		0.1	2	8	3850
MS502J-2	5000		0.1	2	8	3850
MS103J-2	10000		0.1	2	8	3940
MS123J-2	12000		0.1	2	8	3970
MS153J-2	15000		0.1	2	8	4000
MS203J-2	20000		0.1	2	8	4050
MS253J-2	25000		0.1	2	8	4050
MS303J-2	30000		0.1	2	8	4100
MS333J-2	33000		0.1	2	8	4100
MS473J-2	47000		0.1	2	8	4150
MS503J-2	50000		0.1	2	8	4200
MS683J-2	68000		0.1	2	8	4200
MS104J-2	100000		0.1	2	8	4350
MS154J-2	150000		0.1	2	8	4400
MS204J-2	200000		0.1	2	8	4500

# NTC THERMISTOR SERIES

## SPECIFICATIONS

Maida Style Number	Nominal Resistance at 25°C	Maximum Steady State Current	Rated Power @ 25°C	Thermal Dissipation Constant	Thermal Time Constant	Nominal B Constant
	(Ohms)	(Amps)	(mW)	(mW/°C)	(Sec.)	(25°/85°C ±3%)
MS224J-2	220000		0.1	2	8	4500
MS404J-2	400000		0.1	2	8	4750
MS101J-3	100		0.2	2.8	14	3180
MS121J-3	120		0.2	2.8	14	3180
MS151J-3	150		0.2	2.8	14	3180
MS201J-3	200		0.2	2.8	14	3200
MS501J-3	500		0.2	2.8	14	3430
MS102J-3	1000		0.2	2.8	14	3600
MS152J-3	1500		0.2	2.8	14	3650
MS202J-3	2000		0.2	2.8	14	3750
MS222J-3	2200		0.2	2.8	14	3750
MS252J-3	2500		0.2	2.8	14	3750
MS272J-3	2700		0.2	2.8	15	3800
MS302J-3	3000		0.2	2.8	15	3850
MS332J-3	3300		0.2	2.8	15	3850
MS402J-3	4000		0.2	2.8	15	3850
MS472J-3	4700		0.2	2.8	15	3900
MS502J-3	5000		0.2	2.9	15	3450
MS682J-3	6800		0.2	2.9	15	3900
MS103J-3	10000		0.2	3	15	3450
MS123J-3	12000		0.2	3	15	3970
MS153J-3	15000		0.2	3	15	4050
MS203J-3	20000		0.2	3	16	4100
MS223J-3	22000		0.2	3	16	4100
MS253J-3	25000		0.2	3	16	4150
MS303J-3	30000		0.2	3	16	4150
MS333J-3	33000		0.2	3	16	4150
MS403J-3	40000		0.2	3	16	4200
MS473J-3	47000		0.2	3	16	4250
MS503J-3	50000		0.2	3	16	4280
MS683J-3	68000		0.2	3	16	4350
MS104J-3	100000		0.2	3	16	4350
MS154J-3	150000		0.2	3	16	4600
MS204J-3	200000		0.2	3	16	4700
MS224J-3	220000		0.2	3	16	4720
MS244J-3	240000		0.2	3	16	4450
MS304J-3	300000		0.2	3	16	4800
MS334J-3	330000		0.2	3	16	4800
MS404J-3	400000		0.2	3	16	4900
MS474J-3	470000		0.2	3	16	4750
MS504J-3	500000		0.2	3	16	5050
MS105J-3	1000000		0.2	3	16	5300
MS100J-5	10		0.45	7.2	18	3100
MS150J-5	15		0.45	7.2	18	3100
MS200J-5	20		0.45	7.2	18	3100
MS330J-5	33		0.45	7.2	18	3150
MS450J-5	45		0.45	7.2	18	3180
MS500J-5	50		0.45	7.2	18	3180

# NTC THERMISTOR SERIES

## SPECIFICATIONS

Maida Style Number	Nominal Resistance at 25°C	Maximum Steady State Current	Rated Power @ 25°C	Thermal Dissipation Constant	Thermal Time Constant	Nominal B Constant
	(Ohms)	(Amps)	(mW)	(mW/°C)	(Sec.)	(25°/85°C ±3%)
MS700J-5	70		0.45	7.2	18	3200
MS850J-5	85		0.45	7.2	18	3230
MS900J-5	90		0.45	7.2	18	3230
MS101J-5	100		0.45	7.2	18	3260
MS121J-5	120		0.45	7.2	18	3300
MS201J-5	200		0.45	7.2	18	3400
MS221J-5	220		0.45	7.2	18	3400
MS251J-5	250		0.45	7.2	18	3450
MS301J-5	300		0.45	7.2	18	3500
MS351J-5	350		0.45	7.2	18	3500
MS401J-5	400		0.45	7.2	18	3550
MS501J-5	500		0.45	7.2	18	3600
MS601J-5	600		0.45	7.2	18	3600
MS681J-5	680		0.45	7.2	18	3650
MS801J-5	800		0.45	7.2	18	3750
MS901J-5	900		0.45	7.2	18	3750
MS102J-5	1000		0.45	7.3	18	3750
MS142J-5	1400		0.45	7.3	18	3800
MS152J-5	1500		0.45	7.3	18	3800
MS202J-5	2000		0.45	7.3	18	3850
MS222J-5	2200		0.45	7.3	18	3850
MS252J-5	2500		0.45	7.3	18	3900
MS272J-5	2700		0.45	7.3	19	3900
MS302J-5	3000		0.45	7.3	19	3900
MS332J-5	3300		0.45	7.3	19	3900
MS352J-5	3500		0.45	7.3	19	3900
MS402J-2	4000		0.45	7.3	19	3950
MS452J-5	4500		0.45	7.3	19	3950
MS472J-5	4700		0.45	7.3	19	4000
MS502J-5	5000		0.45	7.3	19	4050
MS682J-5	6800		0.45	7.3	19	4050
MS103J-5	10000		0.45	7.5	19	4150
MS123J-5	12000		0.45	7.5	19	4150
MS153J-5	15000		0.45	7.5	19	4200
MS203J-5	20000		0.45	7.5	20	4260
MS253J-5	25000		0.45	7.5	20	4300
MS303J-5	30000		0.45	7.5	20	4400
MS333J-5	33000		0.45	7.5	20	4400
MS403J-5	40000		0.45	7.5	20	4450
MS473J-5	47000		0.45	7.5	20	4550
MS503J-5	50000		0.45	7.5	20	4450
MS104J-5	100000		0.45	7.5	20	4750
MS154J-5	150000		0.45	7.5	20	4900
MS204J-5	200000		0.45	7.5	20	5000
MS224J-5	220000		0.45	7.5	20	5000
MS334J-5	330000		0.45	7.5	20	5050
MS404J-5	400000		0.45	7.5	20	5200
MS474J-5	470000		0.45	7.5	20	5100

# NTC THERMISTOR SERIES

## SPECIFICATIONS

Maida Style Number	Nominal Resistance at 25°C	Maximum Steady State Current	Rated Power @ 25°C	Thermal Dissipation Constant	Thermal Time Constant	Nominal B Constant
	(Ohms)	(Amps)	(mW)	(mW/°C)	(Sec.)	(25°/85°C ±3%)
MS504J-5	500000		0.45	7.5	20	5350