



ELECTRONICS, INC.

44 FARRAND STREET
BLOOMFIELD, NJ 07003
(973) 748-5089
http://www.nteinc.com

NTE8070 thru NTE8242 Thermal Cutoff (Thermal Fuse)

Description:

Nineteen Thermal Cut-offs (also known as Thermal Fuses) are now included in the NTE product line. They are miniature, NON-RESETTABLE temperature sensitive devices designed to prevent appliances and electronic equipment from over-heating. NTE thermal cutoffs are UL and CSA listed.

Literally thousands of different applications have been devised for thermal-cutoffs, thus providing a large replacement market. Such applications include:

- Hair Dryers
- Refrigerators
- Battery Chargers
- Irons
- Hot Plates
- Glue Guns
- Electric Motors
- Window Fans
- Coffee Makers
- Microwave Ovens
- Popcorn Poppers
- Dishwashers
- And hundreds of others

The TCO (Thermal Cut-Off) responds to temperature by interrupting an electrical circuit when the operating and/or environmental temperature exceeds the thermal rating of the device. This is accomplished when the internal organic pellet experiences a phase change, allowing the spring activated contacts to permanently open the circuit.

NTE Type Number	Diagram Number	Maximum Temperature For Opening	
		°C	°F
8070	193	72	162
8076	193	77	171
8081	193	84	184
8085	193	87	189
8090	193	93	200
8096	193	98	209
8098	193	100	212
8103	193	104	220
8108	193	109	229
8115	193	117	243

NTE Type Number	Diagram Number	Maximum Temperature For Opening	
		°C	°F
8118	193	121	250
8125	193	128	263
8139	193	141	286
8149	193	152	306
8167	193	169	336
8181	193	184	364
8182	193	192	378
8213	193	216	421
8226	193	228	443
8242	193	240	464

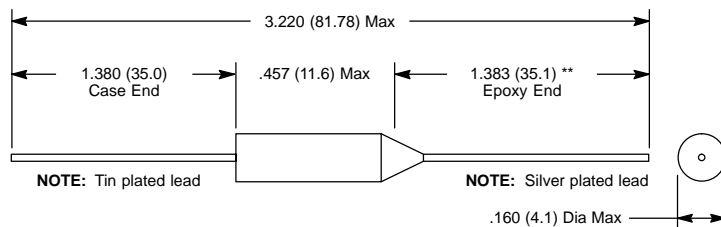
Electrical Rating Volts	Interrupting	Continuous
240 VAC	25A RES	16.7 RES
120 VAC	5 LRA	0.84 FLA
277 VAC	20A RES	15A RES

Electrical Rating Volts	Interrupting	Continuous
120-277 VAC	125VA Pilot Duty	
180 VAC	3A Motor Rating	

FEATURES:

- Maximum Current Rating: 15 Amps
- Typical Opening Temperature Tolerance: +0°C, -4°C
- 18 Gauge Solid Copper Wire
- Full 1 1/3" leads to fit all replacement configurations
- All types meet the requirements of Underwriters Laboratories Specifications and CSA.
- Each device comes packaged with 2 crimp splices for solderless connection (Poly-bag or Carton pack orders only)
- UL File No. E49429
- UL File No. E117626
- CSA File No. LR43279

Diagram 193



NOTE: Tin plated lead

NOTE: Silver plated lead

** Some devices may have a lead length of .980 (25.0)

Note 1: Temperature sensitive devices. **Do not** store above +48°C (+120°F).

Note 2: Color Band does not denote temperature group.

Note 3: The electrical resistance of the NTE series thermal cut-off is comparable to that found in an equal length of 18 gauge solid copper wire. With proper air flow, heat generation below 15 Amps is minimal, above 15Amps the upper limit on the current capacity will depend on the environment for each specific application.

Note 4: A general rule of thumb for continuous operating temperature for thermal cut-offs is 30°C **less** than the Maximum Opening Temperature.