

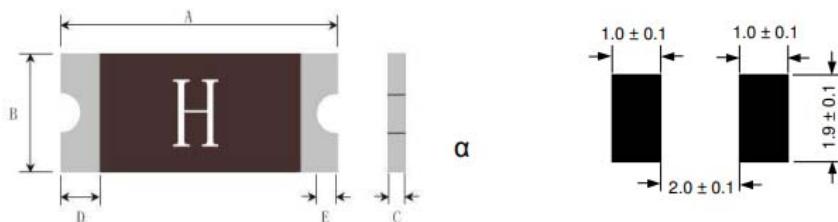
Features

- Surface Mount Devices
- Lead free device
- Size 3216 mm/1206 mils
- Surface Mount packaging for automated assembly
- Agency recognition:UL

Applications

- Almost anywhere there is a low voltage power supply, up to DC60V and a load to be protected, including:
- Computer mother board, Modem, USB hub
- PDAs & Charger, Analog & digital line card
- Digital cameras, Disk drivers, CD-ROMs

Dimensions (mm)



| Model | A | B | C | D | E |
|--------|------|-----|-----|-----|------|
| | min | max | min | max | min |
| NSM005 | 3.00 | 3.5 | 1.5 | 1.8 | 0.60 |
| NSM010 | 3.00 | 3.5 | 1.5 | 1.8 | 0.60 |
| NSM025 | 3.00 | 3.5 | 1.5 | 1.8 | 0.40 |
| NSM035 | 3.00 | 3.5 | 1.5 | 1.8 | 0.40 |
| NSM050 | 3.00 | 3.5 | 1.5 | 1.8 | 0.35 |
| NSM075 | 3.00 | 3.5 | 1.5 | 1.8 | 0.30 |
| NSM100 | 3.00 | 3.5 | 1.5 | 1.8 | 0.40 |
| NSM150 | 3.00 | 3.5 | 1.5 | 1.8 | 0.50 |
| NSM200 | 3.00 | 3.5 | 1.5 | 1.8 | 0.50 |

Environmental Specifications

| Test | Conditions | Resistance change |
|-----------------------|-------------------------|-------------------|
| Passive aging | 85°C, 1000hrs | ±5% typical |
| Humidity aging | 85°C, 85% RH, 168hrs | ±5% typical |
| Thermal shock | 85°C to -40°C, 13times | ±33% typical |
| Resistance to solvent | MIL-STD-202, Method 215 | No change |
| Vibration | MIL-STD-202, Method 201 | No change |

Ambient operating conditions: -40°C to 85°C

Maximum surface of the device in the tripped state is 125°C

Electrical characteristics(25°C)

| Model | Marking | I _{hold} | I _{trip} | V _{max} | I _{max} | P _{d max} | Maximum Time To Trip | | Resistance | |
|-------------|---------|-------------------|-------------------|------------------|------------------|--------------------|----------------------|----------|----------------------|----------------------|
| | | (A) | (A) | (Vdc) | (A) | (w) | Current (A) | Time (S) | R _{min} (Ω) | R _{max} (Ω) |
| NSM005 | Z | 0.05 | 0.15 | 60 | 100 | 0.4 | 0.3 | 1.5 | 3.600 | 50.000 |
| NSM010 | N | 0.10 | 0.25 | 60 | 100 | 0.4 | 0.5 | 1.00 | 1.600 | 15.000 |
| NSM025 | A | 0.25 | 0.50 | 16 | 100 | 0.6 | 8.0 | 0.08 | 0.350 | 2.500 |
| NSM035 | B | 0.35 | 0.75 | 6 | 100 | 0.6 | 8.0 | 0.1 | 0.250 | 1.300 |
| NSM050 | F | 0.50 | 1.00 | 6 | 100 | 0.6 | 8.0 | 0.1 | 0.150 | 0.700 |
| NSM050/13.2 | F | 0.50 | 1.00 | 13.2 | 100 | 0.6 | 8.0 | 0.1 | 0.150 | 0.700 |
| NSM075 | G | 0.75 | 1.50 | 6 | 100 | 0.6 | 8.0 | 0.2 | 0.090 | 0.500 |
| NSM100 | H | 1.00 | 1.80 | 6 | 100 | 0.6 | 8.0 | 0.3 | 0.055 | 0.270 |
| NSM150 | I | 1.50 | 3.00 | 6 | 100 | 0.8 | 8.0 | 0.3 | 0.040 | 0.130 |
| NSM200 | K | 2.00 | 3.50 | 6 | 100 | 0.8 | 8.0 | 1.5 | 0.018 | 0.080 |

I_{hold} Hold Current:Maximum current device will not trip in 25°C still air.

I_{trip} Trip current:Minimum current at which the device will always trip in 25°C still air

V_{max} Maximum operating voltage device can withstand without damage at rated current(I_{max})

I_{max} Maximum fault current device can withstand without damage at rated voltage(V_{max}).

P_d Typical power dissipate from device when in the tripped state in 25°C still air.

R_{min/max} Minimum/Maximum device resistance prior to tripping at 25°C.

R_{1max} Maximum resistance of device at 25°C measured one hour after tripde tripping.

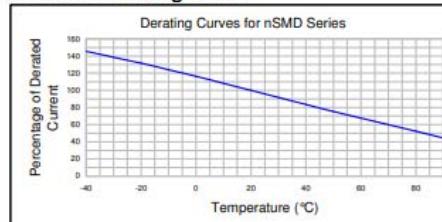
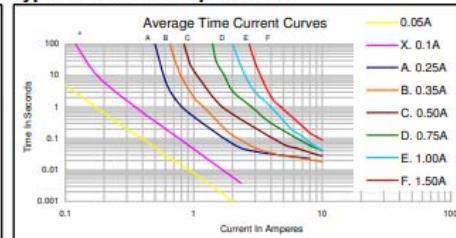
*CAUTION Operation beyond the specified rating may result in damage and possible arcing.

I_{hold} versus temperature

| Model | maximum ambient operating temperature(T _{max})vs.hold current(I _{hold}) | | | | | | | | |
|--------|---|-------|-------|------|--------|--------|-------|------|--------|
| | -40°C | -20°C | 0°C | 25°C | 40°C | 50°C | 60°C | 70°C | 85°C |
| NSM005 | 0.074 | 0.066 | 0.058 | 0.05 | 0.0425 | 0.0375 | 0.035 | 0.03 | 0.0275 |
| NSM010 | 0.145 | 0.33 | 0.115 | 0.10 | 0.085 | 0.08 | 0.07 | 0.06 | 0.055 |
| NSM025 | 0.37 | 0.33 | 0.29 | 0.25 | 0.220 | 0.20 | 0.17 | 0.15 | 0.12 |
| NSM035 | 0.50 | 0.45 | 0.40 | 0.35 | 0.300 | 0.27 | 0.24 | 0.21 | 0.15 |
| NSM050 | 0.71 | 0.64 | 0.57 | 0.50 | 0.420 | 0.39 | 0.35 | 0.31 | 0.25 |
| NSM075 | 1.14 | 1.01 | 0.88 | 0.75 | 0.650 | 0.59 | 0.54 | 0.49 | 0.41 |
| NSM100 | 1.45 | 1.31 | 1.15 | 1.00 | 0.840 | 0.77 | 0.69 | 0.61 | 0.48 |
| NSM150 | 2.18 | 1.94 | 1.72 | 1.50 | 1.280 | 1.17 | 1.06 | 0.96 | 0.77 |
| NSM200 | 2.88 | 2.63 | 2.34 | 2.00 | 1.740 | 1.58 | 1.42 | 1.17 | 0.93 |

Termination pad characteristics

| | |
|----------------------------|---|
| Terminal pad materials | Tin-Plated Nickel-Copper or Gold-Plated Nickel-Copper |
| Terminal pad solderability | Meets EIA specification RS186-9E and ANSI/J-STD-002 Category 3. |

Thermal Derating Curve

Typical Time-To-Trip At 25 °C

Package Information
Reel:

| | |
|------------|--------------|
| NSM005~010 | 3500pcs/Reel |
| NSM025~100 | 5000pcs/Reel |
| NSM150 | 3000pcs/Reel |
| NSM200 | 3500pcs/Reel |