

BOURNS type MF-SM
MULTIFUSE®

The latest surface mount technology, combined with proven advanced PTC principles, is offered in the MF-SM range of resettable fuses. Featuring holding currents of between 0.3A and 2.6A and voltage capabilities of up to 60V, the devices are suitable for a wide range of applications and have relevant European and North American approvals. Supplied taped and reeled.



- ◆ Surface mount package
- ◆ Current ratings from 0.3A to 2.6A
- ◆ UL, CSA & TÜV approved
- ◆ Industry compatible
- ◆ Supplied taped & reeled

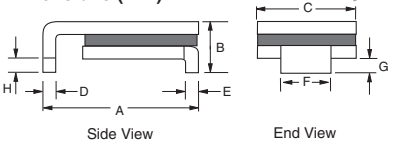
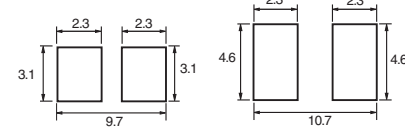

Specification
Environmental Characteristics

| | |
|-------------------------------|--|
| Temperature range | -40°C to +85°C |
| storage | -40°C to +85°C |
| operating | -40°C to +85°C |
| Max. device surface temp..... | 125°C (in tripped state) |
| Passive ageing | 1000 hours/+85°C |
| | ±5% typ. resistance change |
| Humidity ageing..... | 7 days/+85°C/85% R.H. |
| | ±5% typ. resistance change |
| Thermal shock..... | MIL-STD-202F, method 107G |
| | ±10% typ. resistance change (+125°C to -55°C, 10 cycles) |
| Vibration | MIL-STD-883C, method 2007.1, Condition A |
| | No change |



| APPROVAL | FILE NUMBER |
|----------|-------------|
| UL | E174545S |
| CSA | CA110338 |
| TÜV | R2057213 |

| Current (A) | | V Max. (V) | I Max. (A) | Resistance (Ω) | | Max. Time to Trip | | Tripped Power Dissipation (W) | Manf. Part No. & Anglia Order Code |
|-------------|------|------------|------------|----------------|---------|-------------------|------|-------------------------------|------------------------------------|
| @ 23°C | | | | @ 23°C | | Secs | Amps | | |
| Hold | Trip | | | R Min. | R1 Max. | | | | |
| 0.30 | 0.60 | 60 | 10 | 0.90 | 4.80 | 3.0 | 1.5 | 1.7 | MF-SM030-2 |
| 0.50 | 1.00 | 30 | 10 | 0.35 | 1.40 | 4.0 | 2.5 | 1.7 | MF-SM050-2 |
| 0.75 | 1.50 | 30 | 40 | 0.23 | 1.00 | 0.3 | 8.0 | 1.7 | MF-SM075-2 |
| 1.10 | 2.20 | 15 | 40 | 0.12 | 0.48 | 0.5 | 8.0 | 1.7 | MF-SM100-2 |
| 1.25 | 2.50 | 15 | 40 | 0.07 | 0.25 | 2.0 | 8.0 | 1.7 | MF-SM125-2 |
| 1.50 | 3.00 | 15 | 40 | 0.06 | 0.25 | 5.0 | 8.0 | 1.9 | MF-SM150-2 |
| 2.00 | 4.00 | 15 | 40 | 0.045 | 0.125 | 12.0 | 8.0 | 1.9 | MF-SM200-2 |
| 2.50 | 5.00 | 15 | 40 | 0.024 | 0.085 | 25.0 | 8.0 | 1.9 | MF-SM250-2 |
| 2.60 | 5.20 | 6 | 40 | 0.025 | 0.075 | 20.0 | 8.0 | 1.7 | MF-SM260-2 |

Dimensions (mm)

Pad Pattern


| Part No. | A | | B | | C | | D | | E | | F | | G | | H |
|------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|---|
| | Min. | Max. | Max. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | |
| MF-SM030-2 | 6.73 | 7.98 | 3.18 | 5.44 | 0.56 | 0.71 | 0.56 | 0.71 | 2.16 | 2.41 | 0.66 | 1.37 | 0.43 | | |
| MF-SM050-2 | 6.73 | 7.98 | 3.18 | 5.44 | 0.56 | 0.71 | 0.56 | 0.71 | 2.16 | 2.41 | 0.66 | 1.37 | 0.43 | | |
| MF-SM075-2 | 6.73 | 7.98 | 3.18 | 5.44 | 0.56 | 0.71 | 0.56 | 0.71 | 2.16 | 2.41 | 0.66 | 1.37 | 0.43 | | |
| MF-SM100-2 | 6.73 | 7.98 | 3.00 | 5.44 | 0.56 | 0.71 | 0.56 | 0.71 | 2.16 | 2.41 | 0.66 | 1.37 | 0.43 | | |
| MF-SM125-2 | 6.73 | 7.98 | 3.00 | 5.44 | 0.56 | 0.71 | 0.56 | 0.71 | 2.16 | 2.41 | 0.66 | 1.37 | 0.43 | | |
| MF-SM150-2 | 8.00 | 9.50 | 3.00 | 6.71 | 0.56 | 0.71 | 0.56 | 0.71 | 3.68 | 3.94 | 0.66 | 1.37 | 0.43 | | |
| MF-SM200-2 | 8.00 | 9.50 | 3.00 | 6.71 | 0.56 | 0.71 | 0.56 | 0.71 | 3.68 | 3.94 | 0.66 | 1.37 | 0.43 | | |
| MF-SM250-2 | 8.00 | 9.50 | 3.00 | 6.71 | 0.56 | 0.71 | 0.56 | 0.71 | 3.68 | 3.94 | 0.66 | 1.37 | 0.43 | | |
| MF-SM260-2 | 6.73 | 7.98 | 3.00 | 5.44 | 0.56 | 0.71 | 0.56 | 0.71 | 2.16 | 2.41 | 0.66 | 1.37 | 0.43 | | |

Packaging

TAPE : 16mm wide, 8mm pitch except
MF-SM150-2, 200-2 & 250-2 16mm wide, 12mm pitch

REEL : 360mm dia. max.

SMD Resettable Fuses
continued overleaf > > >

NEW

EXCEL type SD

The SD range of surface mount PTC fuses are designed for applications requiring fast tripping resettable circuit protection and a small component size. The fuses are available in a range of holding currents from 0.14 to 1.6A and possess relevant European and North American approvals on most variants. Supplied taped and reeled.



- ◆ Surface mount package
- ◆ Small size (4.5mm)
- ◆ Current ratings from 0.14A to 1.6A
- ◆ Fast tripping
- ◆ Low internal resistance
- ◆ UL and TÜV approved
- ◆ Supplied taped & reeled
- ◆ Competitively priced



Specification

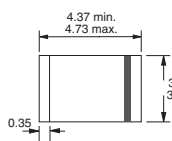
Current rating 140mA ~ 1.6A (see table)
 Maximum voltage 60, 30, 16 or 6V (see table)
 Temperature range -40°C to +85°C



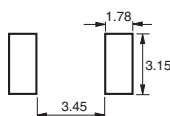
TECHNICAL DATA FOR REFERENCE PURPOSES ONLY

| Current (A) | | V Max. (V) | I Max. (A) | Resistance (Ω) | | Max. Time to Trip | | Tripped Power Dissipation (W) @ 23°C | Dimensions (mm) | | Anglia Order Code |
|-------------|------|------------|------------|----------------|---------|-------------------|------|---|-----------------|------|-------------------|
| @ 23°C | | | | @ 23°C | | Secs | Amps | | Min. | Max. | |
| Hold | Trip | | | R Min. | R1 Max. | | | | | | |
| 0.14 | 0.30 | 60 | 10 | 1.50 | 6.50 | <0.02 | 8 | 0.8 | 0.7 | 1.0 | RT014 |
| 0.20 | 0.40 | 30 | 10 | 0.80 | 5.00 | 0.02 | 8 | 0.8 | 0.4 | 0.7 | RT020 |
| 0.35 | 0.70 | 16 | 40 | 0.32 | 1.50 | 0.10 | 8 | 0.8 | 0.4 | 0.7 | RT035 |
| 0.50 | 1.00 | 16 | 40 | 0.15 | 1.00 | 0.15 | 8 | 0.8 | 0.4 | 0.7 | RT050 |
| 0.75 | 1.50 | 16 | 40 | 0.11 | 0.45 | 0.20 | 8 | 0.8 | 0.4 | 0.7 | RT075 |
| 1.10 | 2.20 | 6 | 40 | 0.04 | 0.21 | 0.30 | 8 | 0.8 | 0.4 | 0.7 | RT110 |
| 1.60 | 3.20 | 6 | 40 | 0.03 | 0.10 | <0.50 | 8 | 0.8 | 0.4 | 0.7 | RT160 |

Dimensions (mm)



Pad Pattern



Packaging

TAPE : 12mm wide, 8mm pitch REEL : 185mm dia. max.

For the very latest information and news on the full range of ECE products available from Anglia, visit our website : www.anglia.com/ece

Alternatively, contact our Sales Desk to discuss your specific requirements.

BOURNS type MF-MSMD
MULTIFUSE®

The MF-MSMD range of surface mount PTC fuses are designed for applications requiring fast tripping resettable circuit protection and a small component size. The fuses are available in a range of holding currents from 0.1A to 2.6A and possess relevant European and North American approvals. Supplied taped and reeled.



- ◆ Surface mount package
- ◆ Small size (4.5mm)
- ◆ Current ratings from 0.1A to 2.6A
- ◆ Fast tripping
- ◆ Low internal resistance
- ◆ UL, CSA & TÜV approved
- ◆ Supplied taped & reeled

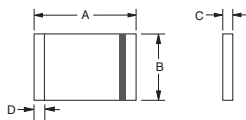
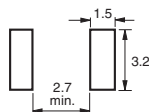

Specification
Environmental Characteristics

| | |
|--------------------------------|---|
| Temperature range | |
| storage | -40°C to +85°C |
| operating | -40°C to +85°C |
| Max. device surface temp | 125°C (in tripped state) |
| Passive ageing | 1000 hours/+85°C |
| Humidity ageing | ±5% typ. resistance change 1000 hours/+85°C/85% R.H |
| Thermal shock | ±5% typ. resistance change MIL-STD-202F, method 107G |
| Vibration | ±10% typ. resistance change (+85°C to -40°C, 20 times) MIL-STD-883C, method 2007.1, Condition A = No change |
| Solvent resistance | MIL-STD-202, method 215 No change |



| APPROVAL | FILE NUMBER |
|----------|-------------|
| UL | E174545S |
| CSA | CA110338 |
| TÜV | R2057213 |

| Current (A) | | V Max. (V) | I Max. (A) | Resistance (Ω) | | Max. Time to Trip | | Tripped Power Dissipation (W) | Manf. Part No. & Anglia Order Code |
|-------------|------|------------|------------|----------------|---------|-------------------|------|-------------------------------|------------------------------------|
| @ 23°C | | | | @ 23°C | | | | @ 23°C | |
| Hold | Trip | | | R Min. | R1 Max. | Secs | Amps | | |
| 0.10 | 0.20 | 30.0 | 10 | 0.70 | 15.00 | 1.50 | 0.5 | 0.8 | MF-MSMD010-2 |
| 0.14 | 0.34 | 60.0 | 10 | 0.70 | 6.00 | 0.15 | 1.5 | 0.8 | MF-MSMD014-2 |
| 0.20 | 0.40 | 30.0 | 10 | 0.40 | 5.00 | 0.06 | 6.0 | 0.8 | MF-MSMD020-2 |
| 0.50 | 1.00 | 15.0 | 40 | 0.15 | 1.00 | 0.15 | 8.0 | 0.8 | MF-MSMD050-2 |
| 0.75 | 1.50 | 13.2 | 40 | 0.11 | 0.45 | 0.20 | 8.0 | 0.8 | MF-MSMD075-2 |
| 1.10 | 2.20 | 6.0 | 40 | 0.04 | 0.21 | 0.30 | 8.0 | 0.8 | MF-MSMD110-2 |
| 1.25 | 2.50 | 6.0 | 40 | 0.035 | 0.14 | 0.40 | 8.0 | 0.8 | MF-MSMD125-2 |
| 1.50 | 3.00 | 6.0 | 40 | 0.030 | 0.11 | 0.50 | 8.0 | 0.8 | MF-MSMD150-2 |
| 2.00 | 4.00 | 6.0 | 40 | 0.022 | 0.060 | 3.00 | 8.0 | 1.5 | MF-MSMD200-2 |
| 2.60 | 5.20 | 6.0 | 40 | 0.015 | 0.043 | 10.00 | 8.0 | 1.5 | MF-MSMD260-2 |

Dimensions (mm)

Pad Pattern


| Part No. | A | | B | | C | | D |
|--------------|------|------|------|------|------|------|------|
| | Min. | Max. | Min. | Max. | Min. | Max. | Min. |
| MF-MSMD010-2 | 4.37 | 4.73 | 3.07 | 3.41 | 0.56 | 0.81 | 0.30 |
| MF-MSMD014-2 | 4.37 | 4.73 | 3.07 | 3.41 | 0.56 | 0.81 | 0.30 |
| MF-MSMD020-2 | 4.37 | 4.73 | 3.07 | 3.41 | 0.56 | 0.81 | 0.30 |
| MF-MSMD050-2 | 4.37 | 4.73 | 3.07 | 3.41 | 0.38 | 0.62 | 0.30 |
| MF-MSMD075-2 | 4.37 | 4.73 | 3.07 | 3.41 | 0.38 | 0.62 | 0.30 |
| MF-MSMD110-2 | 4.37 | 4.73 | 3.07 | 3.41 | 0.38 | 0.62 | 0.30 |
| MF-MSMD125-2 | 4.37 | 4.73 | 3.07 | 3.41 | 0.28 | 0.48 | 0.25 |
| MF-MSMD150-2 | 4.37 | 4.73 | 3.07 | 3.41 | 0.28 | 0.48 | 0.25 |
| MF-MSMD200-2 | 4.60 | 4.75 | 3.20 | 3.60 | 1.50 | 2.00 | 1.40 |
| MF-MSMD260-2 | 4.60 | 4.75 | 3.20 | 3.60 | 1.50 | 2.00 | 1.40 |

Packaging

TAPE : 12mm wide, 8mm pitch

REEL : 185mm dia. max.