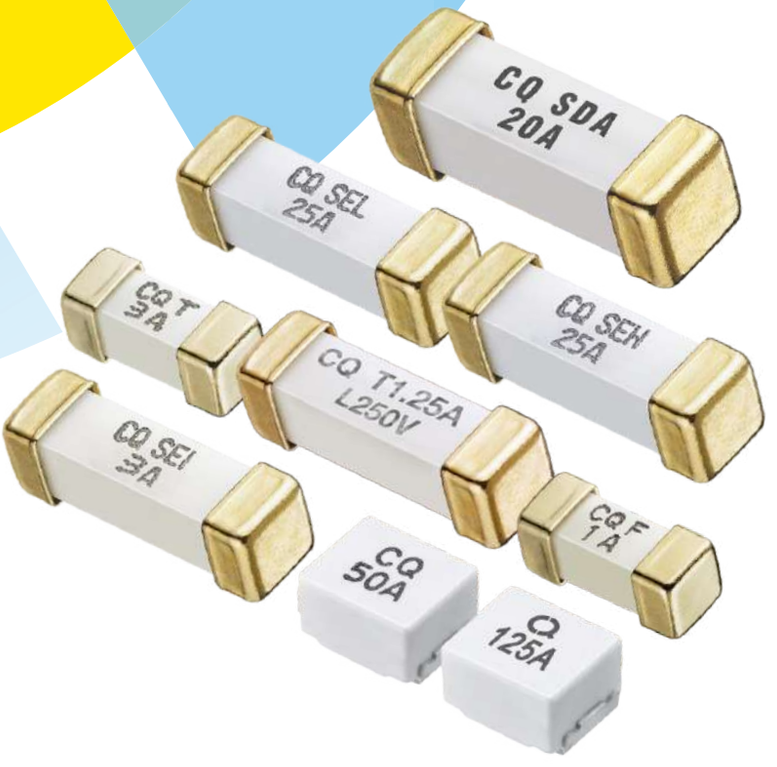


Surface Mount Fuse - SMD

The design of wire-in-air structure makes fuses durable and reliable.

SEH(G)

10.1 x 3.1 x 3.1 mm (4012)

Perfectly suited for a wide range of battery protection boards

Agency Approvals

Agency	Ampere Rating
Recognized Component for Canada and US	20A - 30A
TUV	20A - 30A

Interrupting Rating

20A:	100 amperes at 125V AC 300 amperes at 100V DC
25A - 30A:	100 amperes at 100V DC 100 amperes at 125V AC

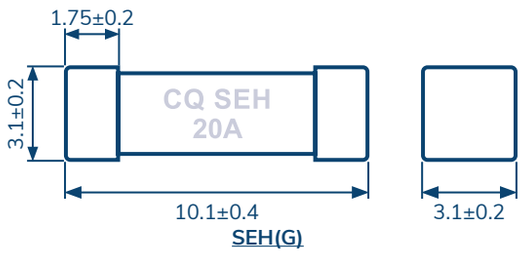
Product Characteristics

Operating Temperature	-55 °C to 125 °C
Material	Body: Ceramic Termination: Gold Plated Brass Caps

Packaging

Packaging Option	Quantity
On Tape	2,500 pcs / reel

Mechanical Dimensions (mm)



SEH(G)

Electrical Characteristics

Ampere Rating	Opening Time	
	1 In	2 In
	MIN	MAX
20A - 30A	4 hr	60 sec

Catalog Number	Ampere Rating (A)	Voltage Rating (V)	Nominal Cold Resistance (Ohms)	Nominal Melting I^2t (A^2 sec.)
SEH 020	20A	125V	0.0033	18.000
SEH 025	25A		0.0022	45.000
SEH 030	30A		0.0016	101.00

SEI(G)

10.1 x 3.1 x 3.1 mm (4012)

RoHS

Agency Approvals

Agency	Ampere Rating
Recognized Component for Canada and US	500mA - 5A
TUV	500mA - 5A
KTL	500mA - 5A
CQC	500mA - 3A 4A - 5A

Interrupting Rating

50 amperes at 250V AC

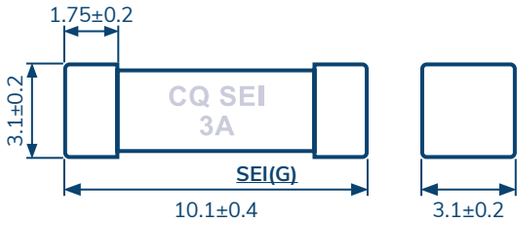
Product Characteristics

Operating Temperature	-55 °C to 125 °C
Material	Body: Ceramic Termination: Gold Plated Brass Caps

Packaging

Packaging Option	Quantity
On Tape	2,500 pcs / reel

Mechanical Dimensions (mm)



Electrical Characteristics

Ampere Rating	Opening Time	
	1 In	2.5 In
	MIN	MAX
500mA - 5A	4 hr	120 sec

Catalog Number	Ampere Rating (A)	Voltage Rating (V)	Nominal Cold Resistance (Ohms)	Nominal Melting I²t (A² sec.)
SEI .500	500mA	250V	0.5479	1.963
SEI .750	750mA		0.2600	3.375
SEI 001	1A		0.1800	11.22
SEI 1.50	1.5A		0.1027	14.85
SEI 002	2A		0.0504	19.84
SEI 2.50	2.5A		0.0370	20.50
SEI 003	3A		0.0280	54.00
SEI 3.50	3.5A		0.0199	57.82
SEI 004	4A		0.0158	125.6
SEI 005	5A		0.0120	185.0

SEJ

10.1 x 3.1 x 3.1 mm (4012)

Time-Lag Fuse

RoHS

Agency Approvals

Agency	Ampere Rating
Recognized Component for Canada and US	1.25A
TUV	1.25A
PSE	1.25A
KTL	1.25A
CQC	1.25A

Interrupting Rating

250 amperes at 250V AC
200 amperes at 280V AC
200 amperes at 250V AC
200 amperes at 63V AC
100 amperes at 250V DC
100 amperes at 125V DC
200 amperes at 63V DC

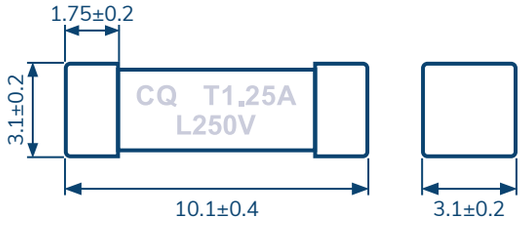
Product Characteristics

Operating Temperature	-55 °C to 125 °C
Material	Body: Ceramic Termination: Gold Plated Brass Caps

Packaging

Packaging Option	Quantity
On Tape	2,500 pcs / reel

Mechanical Dimensions (mm)



SEJ

Electrical Characteristics

Ampere Rating	Opening Time			
	1.25 In	2 In	10 In	
	MIN	MAX	MIN	MAX
1.25A	60 min	120 sec	10 ms	100 ms

Catalog Number	Ampere Rating (A)	Voltage Rating (V)	Nominal Cold Resistance (Ohms)	Nominal Melting I^2t (A^2 sec.)
SEJ 1.25	1.25A	250V	0.105	4.52

SEL

10.1 x 3.1 x 3.1 mm (4012)

The SEL series offer high-amp circuit protection and surface mount fuses help space saving

Agency Approvals

Agency	Ampere Rating
Recognized Component for Canada and US	10A - 60A
TUV	10A

Interrupting Rating

10A - 20A:	50 amperes at 250V DC 100 amperes at 250V AC 150 amperes at 125V AC 130 amperes at 80V DC 300 amperes at 72V DC
25A - 35A:	100 amperes at 250V AC 150 amperes at 125V AC 130 amperes at 80V DC 300 amperes at 72V DC
40A - 60A:	100 amperes at 250V AC 150 amperes at 125V AC 300 amperes at 65V AC 100 amperes at 100V DC 200 amperes at 75V DC 600 amperes at 60V DC

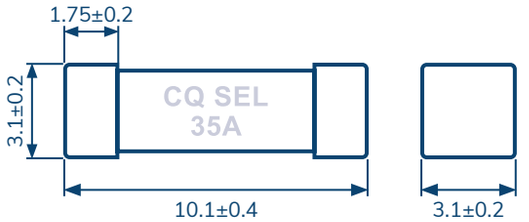
Product Characteristics

Operating Temperature	-55 °C to 125 °C
Material	Body: Ceramic Termination: Gold Plated Brass Caps

Packaging

Packaging Option	Quantity
On Tape	2,500 pcs / reel

Mechanical Dimensions (mm)



SEL

Electrical Characteristics

Ampere Rating	Opening Time	
	1 In	2 In
	MIN	MAX
10A - 60A	4 hr	60 sec

Catalog Number	Ampere Rating (A)	Voltage Rating (V)	Nominal Cold Resistance (Ohms)	Nominal Melting I^2t (A^2 sec.)
SEL 010	10A	250V	0.00670	75.000
SEL 015	15A		0.00500	141.75
SEL 020	20A		0.00300	356.00
SEL 025	25A		0.00240	625.00
SEL 030	30A		0.00180	900.00
SEL 035	35A		0.00140	1320.0
SEL 040	40A		0.00122	1897.6
SEL 050	50A		0.00107	3150.0
SEL 060	60A		0.00089	4224.0

SEM

10.1 x 3.1 x 3.1 mm (4012)

Designed to allow compliance with Telcordia GR-1089-CORE and TIA968-A

RoHS

Agency Approvals

Agency	Ampere Rating
Recognized Component for Canada and US	500mA - 2A
TUV	500mA - 2A

Interrupting Rating

60 amperes at 250V AC
60 amperes at 600V AC
50 amperes at 250V DC
100 amperes at 125V DC

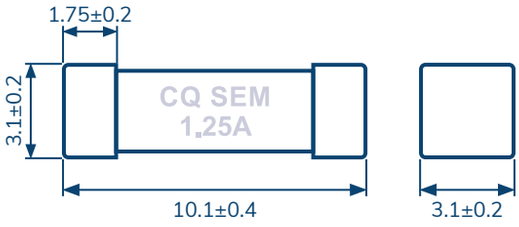
Product Characteristics

Operating Temperature	-55 °C to 125 °C
Material	Body: Ceramic Termination: Gold Plated Brass Caps

Packaging

Packaging Option	Quantity
On Tape	2,500 pcs / reel

Mechanical Dimensions (mm)



SEM

Electrical Characteristics

Ampere Rating	Opening Time		
	1 In	2.5 In	
	MIN	MIN	MAX
500mA - 2A	4 hr	1 sec	120 sec

Catalog Number	Ampere Rating (A)	Voltage Rating (V)	Nominal Cold Resistance (Ohms)	Nominal Melting I²t (A² sec.)
SEM .500	500mA	600V	0.480	1.40
SEM 1.25	1.25A		0.100	22.0
SEM 002	2A		0.055	24.0

SDA

15.7 x 5.2 x 5.2 mm

High Breaking Capacity SMD Fuse

RoHS

Agency Approvals

Agency	Ampere Rating
Recognized Component for Canada and US	1A - 20A
TUV	8A - 20A
CQC	8A - 10A

Interrupting Rating

1A - 2A :	1500 amperes at 277V AC 1500 amperes at 250V DC
2.5A-6.3A :	1500 amperes at 277V AC 1500 amperes at 125V DC
8A - 10A :	1500 amperes at 250V AC 1500 amperes at 125V DC 100 amperes at 350V AC (optional) 2000 amperes at 125V DC (optional)
12.5A :	1000 amperes at 250V AC 1000 amperes at 125V DC 100 amperes at 350V AC (optional) 2000 amperes at 125V DC (optional)
15A-16A :	500 amperes at 250V AC 500 amperes at 125V DC 100 amperes at 350V AC (optional) 1000 amperes at 250V AC (optional) 2000 amperes at 125V DC (optional)
20A :	300 amperes at 250V AC 500 amperes at 125V DC 300 amperes at 125V AC 500 amperes at 72V DC 100 amperes at 350V AC (optional) 1000 amperes at 250V AC (optional) 2000 amperes at 125V DC (optional)

Product Characteristics

Operating Temperature	-55 °C to 125 °C
Material	Body: Ceramic Termination: Gold Plated Brass Caps

Packaging

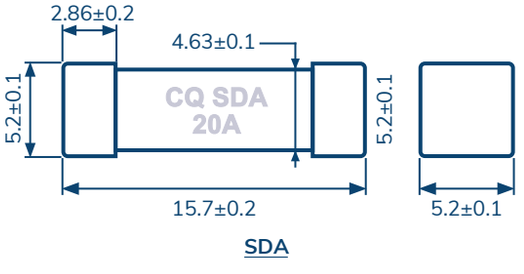
Packaging Option	Quantity
On Tape	800 pcs / reel

Electrical Characteristics

Ampere Rating	Opening Time				
	1.25 In	2 In	2.5 In	10 In	
	MIN	MAX	MAX	MIN	MAX
1A-12.5A	60 min	120 sec	-	10 ms	100 ms
15A-16A	-	120 sec	-	10 ms	100 ms
20A	-	-	120 sec	5 ms	100 ms

Catalog Number	Ampere Rating (A)	Voltage Rating (V)	Nominal Cold Resistance (Ohms)	Nominal Melting I^2t (A^2 sec.)
SDA 001	1A	277V	0.3450	4.1
SDA 1.25	1.25A		0.2178	4.7
SDA 1.60	1.6A		0.1287	5
SDA 002	2A		0.0870	11
SDA 2.50	2.5A		0.0629	26
SDA 3.15	3.15A		0.0470	41
SDA 004	4A		0.0287	50
SDA 005	5A		0.0183	102
SDA 6.30	6.3A		0.0161	187
SDA 008	8A	250V	0.0087	88
SDA 010	10A		0.0060	194
SDA 12.5	12.5A		0.0044	354
SDA 015	15A		0.0050	316
SDA 016	16A		0.0033	638
SDA 020	20A		0.0029	424

Mechanical Dimensions (mm)



SDA

MMS-P

7.3 x 5.8 x 4.0 mm (2923)

Specially customized for use in power tool battery packs

RoHS

Agency Approvals

Agency	Ampere Rating
Recognized Component for Canada and US	20A - 50A
TUV	20A - 50A

Electrical Characteristics

Ampere Rating	Opening Time	
	1 In	2.5 In
	MIN	MAX
20A - 50A	4 hr	60 sec

Interrupting Rating

300 amperes at 35V DC
300 amperes at 60V DC

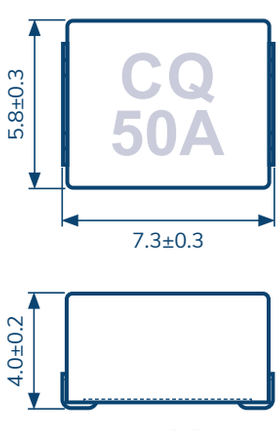
Catalog Number	Ampere Rating (A)	Voltage Rating (V)	Nominal Cold Resistance (Ohms)	Nominal Melting I²t (A² sec.)
MMS-P 020	20A	60V	0.0020	108.00
MMS-P 030	30A		0.0012	270.00
MMS-P 040	40A		0.0010	416.00
MMS-P 050	50A		0.0007	1750.0

* Measured at ≤ 10% of rated current at 25° C
* Melting I²t at 1000% of current rating

Product Characteristics

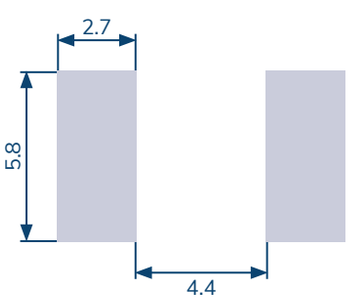
Operating Temperature	-55 °C to 125 °C
Material	Body: Ceramic Termination: Copper(Cu), Tin(Sn) Element: Copper(Cu), Tin(Sn)

Mechanical Dimensions (mm)



MMS-P

Recommended Land Pattern



Reflow Solder

Packaging

Packaging Option	Quantity
On Tape	1,000 pcs / reel

28MH

7.3 x 5.8 x 4.0 mm (2923)

Specially customized for use in power tool battery packs

Agency Approvals

Agency	Ampere Rating
Recognized Component for Canada and US	20A - 125A
TUV	20A - 100A

Interrupting Rating

1500 amperes at 80V DC

Product Characteristics

Operating Temperature	-55 °C to 125 °C
Material	Body: Ceramic Termination: Copper(Cu), Tin(Sn) Element: Copper(Cu), Tin(Sn)

Packaging

Packaging Option	Quantity
On Tape	1,000 pcs / reel

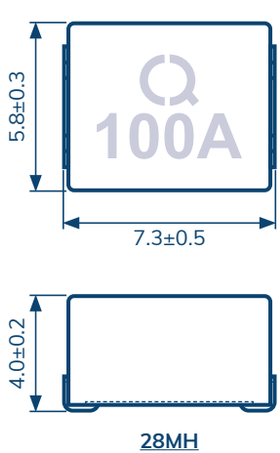
Electrical Characteristics

Ampere Rating	Opening Time	
	1 In	2.5 In
	MIN	MAX
20A - 125A	4 hr	60 sec

Catalog Number	Ampere Rating (A)	Voltage Rating (V)	Nominal Cold Resistance (Ohms)	Nominal Melting I²t (A² sec.)
28MH 020	20A	80V	0.00200	162.00
28MH 030	30A		0.00120	369.00
28MH 040	40A		0.00100	521.00
28MH 050	50A		0.00080	1208.0
28MH 060	60A		0.00065	1616.0
28MH 080	80A		0.00055	2624.0
28MH 100	100A		0.00040	6631.0
28MH 125	125A		0.00030	17692

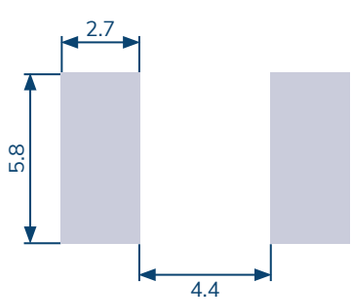
* Measured at ≤ 10% of rated current at 25° C
* Melting I²t at 1000% of current rating

Mechanical Dimensions (mm)



28MH

Recommended Land Pattern



Reflow Solder