Electronic Fuses

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RED indicates NEW information

5 x 15mm ferrule fuses

C515 (axial leads)

C519

Specifications
Description: Time-delay fuse.
Construction: Glass tube.
Ratings:
Volts — 125Vac (3.5-7A)
— 250Vac (125mA-3A)
Amps — 125mA-7A
IR — 35A (125mA-1A @ 250Vac, p.f. = 0.7-0.8)
— 10kA (125mA-3A @ 125Vac, p.f. = 0.7-0.8)
— 25A (350mA @ 600V, p.f. = 0.7-0.8)
— 100A (1.25-3A @ 250Vac, p.f. = 0.7-0.8)
— 400A (3.5-7A @ 125Vac, p.f. = 1.0)

RoHS 2002/95/EC

Agency Information: CE, UL Listing File E19180, Guide JDYX 125mA-250mA and 375mA-3A CSA Certification File LR65063, Class 1422-01, 125mA-250mA and 375mA-3A, UL Recognized, File E19180, Guide JDYX2, 350mA and 3.5A-7A.

Features and Benefits
- Time-delay for closer sizing on inductive circuits.

Typical Application
- Electronic Circuits
- Printed Circuit Boards

Catalog Numbers (Amps)

With Axial Leads

C515-125-R	C515-750-R	C515-2.25-R
C515-250-R	C515-1-R	C515-3-R
C515-350-R	C515-1.25-R	C515-3.5-R
C515-375-R	C515-1.5-R	C515-4-R
C515-500-R	C515-1.6-R	C515-5-R
C515-600-R	C515-2-R	C515-7-R

Without Axial Leads

C519-125-R	C519-750-R	C519-2.25-R
C519-250-R	C519-1-R	C519-3-R
C519-350-R	C519-1.25-R	C519-3.5-R
C519-375-R	C519-1.5-R	C519-4-R
C519-500-R	C519-1.6-R	C519-5-R
C519-600-R	C519-2-R	C519-7-R

Data Sheet: 2006 (C515) & 2007 (C519)

C518 (axial leads)

C520

Specifications
Description: Fast-acting fuse.
Construction: Glass tube.
Ratings:
Volts — 250Vac
Amps — 100mA-5A
IR — 35A (100mA-750mA @ 250V, p.f. = 0.7-0.8)
— 10kA (100mA-5A @ 125V, p.f. = 0.7-0.8)
— 100A (1-3.5A @ 250V, p.f. = 0.7-0.8)
— 200A (4-5A @ 250V, p.f. = 0.7-0.8)

RoHS 2002/95/EC

Agency Information: CE, UL Listing File E19180, Guide JDYX CSA Certification File LR65063, Class 1422-01.

Features and Benefits
- Small footprint saves space in equipment.
- Fast-acting for maximum component protection.
- Available in clip mount and solder-in configurations

Typical Applications
- Electronic Circuits
- Printed circuit Boards

Catalog Numbers (Amps)

With Axial Leads

C518-100-R	C518-750-R	C518-3-R
C518-125-R	C518-1-R	C518-3.5-R
C518-250-R	C518-1.5-R	C518-4-R
C518-375-R	C518-2-R	C518-5-R
C518-500-R	C518-2.5-R	

Without Axial Leads

C520-100-R	C520-750-R	C520-3-R
C520-125-R	C520-1-R	C520-3.5-R
C520-250-R	C520-1.5-R	C520-4-R
C520-375-R	C520-2-R	C520-5-R
C520-500-R	C520-2.5-R	

Data Sheet: 2026 (C518) & 2027 (C520)

C517 (axial leads)

Specifications
Description: Fast-acting fuse.
Construction: Glass tube.
Ratings:
Volts — 350Vac*
Amps — 3A
IR — 100A @ 350Vac, p.f. = 1.0
— 100A @ 250Vac, p.f. = 0.7-0.8
— 10kA @ 125Vac, p.f. = 0.7-0.8

*350Vac/100A is UL Recognized

Agency Information: CE, UL Listing File E19180, Guide JDYX CSA Certification File LR65063, Class 1422-01 UL Recognized, File E19180, Guide JDYX2.
- Small footprint saves space in equipment.
- Fast-acting for maximum component protection.
- 350Vac rating for 277V ballast circuit protection.

Typical Applications
- Electronic Circuits
- Printed Circuit Boards
- Electronic Ballast Protection

Catalog Number (Amps)

With Axial Leads
C517-3

Data Sheet: 2025

For product data sheets, visit www.cooperbussmann.com/products/datasheet.asp

5 x 20mm European (IEC) ferrule fuses

S500-V (GDB-V) (axial leads)

S500 (GDB)

Specifications
Description: Fast-acting, low-breaking capacity fuse.

Construction: Glass tube, nickel-plated brass end-caps.

Ratings:
Volts — 250Vac (or less)
Amps — 32mA-16A
IR — 35A @ 250Vac

RoHS 2002/95/EC

Agency Information: CE, Designed to IEC 60127-Sheet II British Standard Approval SEMKO Approval VDE Approval, IMQ UL Recognized, Guide JDYX2, File E19180, 32mA-6.3A.

Features and Benefits
- Fast-acting for maximum protection, conforms to IEC standards.

Typical Applications
- Electronic Circuits

Catalog Numbers (Amps)

Catalog Numbers	I^2t	Max Voltage Drop (mV)
S500-32	0.000047	10000
S500-40	0.00011	8000
S500-50	0.00020	3200
S500-63	0.00057	2500
S500-80	0.0012	2200
S500-100	0.003	2100
S500-125	0.005	2000
S500-160	0.008	1950
S500-200	0.016	1600
S500-250	0.028	1400
S500-315	0.058	1150
S500-400	0.018	950
S500-500	0.018	220
S500-630	0.035	220
S500-800	0.067	180
S500-1	0.60	200
S500-1.25	0.84	200
S500-1.6	1.6	190
S500-2	4.2	160
S500-2.5	6.1	145
S500-3.15	13	130
S500-4	22	120
S500-5	42	115
S500-6.3	69	110
S500-8*	—	—
S500-10*	—	—
S500-12*	—	—
S500-16*	—	—

*IEC Standard 127 Sheet II does not include ratings above 6.3A.

Options

Axial leads, put “V” in P/N,
RoHS compliant, put “R” suffix in P/N.
Example: S500-V-1.25-R.

Data Sheet: 2015

S501-V (GDA-V) (axial leads)

S501 (GDA)

Specifications
Description: Fast-acting, high-breaking capacity fuse.

Construction: Ceramic tube, nickel-plated brass end-caps.

Ratings:
Volts — 250Vac (or less)
Amps — 50mA-6.3A
IR — 1500A @ 250Vac

RoHS 2002/95/EC

Agency Information: CE, UL Recognized, Guide JDYX2, File E19180, 50mA and 315mA-6.3A SEMKO Approval 50mA, 200mA and 315mA-6.3A, IEC 60127-Sheet I, VDE Approval 1.25A-6.3A.

Features and Benefits
- Fast-acting for maximum protection.
- High break capacity for use in higher fault energy electronic circuitry.
- Conforming to IEC standards.

Typical Applications
- Electronic Circuits

Catalog Numbers (Amps)

Catalog Numbers	I^2t	Max Voltage Drop (mV)
S501-50	0.0017	9000
S501-63	0.0005	3300
S501-80	0.0011	2600
S501-100	0.0018	2300
S501-125	0.0037	1900
S501-160	0.008	1600
S501-200	0.020	1350
S501-250	0.027	1300
S501-315	0.010	1400
S501-400	0.018	1200
S501-500	0.038	1050
S501-630	0.064	1200
S501-800	0.097	490
S501-1	0.480	230
S501-1.25	0.9	200
S501-1.6	1.9	180
S501-2	2.0	205
S501-2.5	3.9	190
S501-3.15	8.1	160
S501-4	14	160
S501-5	25	155
S501-6.3	48	150

Options

Axial leads, put “V” in P/N,
RoHS compliant, put “R” suffix in P/N.
Example: S501-V-1.25-R.

Data Sheet: 2014

S506-V (GDC-V) (axial leads)

S506 (GDC)

Specifications
Description: Time-delay, low-breaking capacity fuse.

Construction: Glass tube, nickel-plated brass end-caps.

Ratings:
Volts — 250Vac (or less)
Amps — 32mA-6.3A
IR — 35A @ 250Vac

RoHS 2002/95/EC

Agency Information: CE, Designed to IEC 60127-Sheet III British Standard Approval SEMKO Approval VDE Approval, IMQ UL Recognized, Guide JDYX2, File E19180, 32mA-6.3A.

Features and Benefits
- Time-delay compatibility for inductive circuits.
- Conforming to IEC standards.

Typical Applications
- Electronic Circuits

Catalog Numbers (Amps)

Catalog Numbers	I^2t	Max Voltage Drop (mV)
S506-32	0.0014	1050
S506-40	0.0034	920
S506-50	0.006	800
S506-63	0.012	760
S506-80	0.015	580
S506-100	0.022	490
S506-125	0.034	390
S506-160	0.052	320
S506-200	0.078	340
S506-250	0.17	270
S506-315	0.41	250
S506-400	0.61	210
S506-500	0.75	168
S506-630	1.3	158
S506-800	3.1	132
S506-1	3.6	85
S506-1.25	7	80
S506-1.6	10	80
S506-2	17	80
S506-2.5	34	80
S506-3.15	56	75
S506-4	91	75
S506-5-	133	75
S506-6.3	270	65

Options

Axial leads, put “V” in P/N,
RoHS compliant, put “R” suffix in P/N.
Example: S506-V-1.25-R.

Data Sheet: 2016

5 x 20mm North American (UL) ferrule fuses

GMA-V (axial leads)

GMA

Specifications
Description: Fast-acting fuse.
Construction: Glass tube, nickel-plated brass endcaps.
Ratings:
Volts — 250Vac (63mA-2.5A)
— 125Vac (3.15-15A)
Amps — 63mA-15A
IR — 35A (63mA- 1A @ 250Vac, p.f. = 0.7-0.8)
— 10kA (63mA-6A @ 125Vac, p.f. = 0.7-0.8)
— 100A (1.25-2.5A @ 250Vac, p.f. = 0.7-0.8)
— 200A (7-8A @ 125Vac, p.f. = 1.0)
— 150A (10-15A @ 125Vac, p.f. = 1.0)

RoHS 2002/95/EC

Agency Information: CE, Std. 248-14 UL Listed Guide JDYX, File E19180, 0-6A, UL Recognized, Guide JDYX2, File E19180, 7-15A, CSA Certified, Class 1422-01, File E65063, 0-6.

Features and Benefits
• Fast-acting for maximum protection.

Typical Applications
• Electronic Circuits

Catalog Numbers (Amps)

With Axial Leads		
GMA-V-63-R	GMA-V-800-R	GMA-V-4-R
GMA-V-100-R	GMA-V-1-R	GMA-V-5-R
GMA-V-125-R	GMA-V-1.25-R	GMA-V-6-R
GMA-V-200-R	GMA-V-1.5-R	GMA-V-7-R
GMA-V-250-R	GMA-V-1.6-R	GMA-V-8-R
GMA-V-300-R	GMA-V-2-R	GMA-V-10-R
GMA-V-500-R	GMA-V-2.5-R	GMA-V-15-R
GMA-V-600-R	GMA-V-3.15-R	
GMA-V-750-R	GMA-V-3.5-R	
Without Axial Leads		
GMA-63-R	GMA-800-R	GMA-4-R
GMA-100-R	GMA-1-R	GMA-5-R
GMA-125-R	GMA-1.25-R	GMA-6-R
GMA-200-R	GMA-1.5-R	GMA-7-R
GMA-250-R	GMA-1.6-R	GMA-8-R
GMA-300-R	GMA-2-R	GMA-10-R
GMA-500-R	GMA-2.5-R	GMA-15-R
GMA-600-R	GMA-3.15-R	
GMA-750-R	GMA-3.5-R	

Data Sheet: 2017

GMC-V (axial leads)

GMC

Specifications
Description: Medium time-delay fuse.
Construction: Glass tube, nickel-plated brass endcaps.
Ratings:
Volts — 250Vac (63mA-3.15A)
— 125Vac (3.5-10A)
Amps — 63mA-10A
IR — 35A (63mA- 1A @ 250Vac, p.f. = 0.7-0.8)
— 10kA (63mA-6A @ 125Vac, p.f. = 0.7-0.8)
— 100A (1.25-3.15A @ 250Vac, p.f. = 0.7-0.8)
— 200A (6.3-10A @ 125Vac, p.f. = 1.0)

RoHS 2002/95/EC

Agency Information: CE, Std. 248-14, UL Listed Guide JDYX, File E19180, 0-6.3A, UL Recognized, Guide JDYX2, File E19180, 7-8A, CSA Certified, Class 1422-01, File 65063, 0-6.3A.

Features and Benefits
• Conforming to UL standards.

Typical Applications
• Electronic Circuits

Catalog Numbers (Amps)

With Axial Leads		
GMC-V-63-R	GMC-V-500-R	GMC-V-2.5
GMC-V-80-R	GMC-V-600-R	GMC-V-3.15
GMC-V-100-R	GMC-V-630-R	GMC-V-3.5
GMC-V-125-R	GMC-V-750-R	GMC-V-4
GMC-V-150-R	GMC-V-800-R	GMC-V-5
GMC-V-200-R	GMC-V-1-R	GMC-V-6
GMC-V-250-R	GMC-V-1.25-R	GMC-V-6.3
GMC-V-300-R	GMC-V-1.5-R	GMC-V-7
GMC-V-315-R	GMC-V-1.6-R	GMC-V-8
GMC-V-400-R	GMC-V-2-R	GMC-V-10
Without Axial Leads		
GMC-63mA	GMC-500-R	GMC-2.5-R
GMC-80mA	GMC-600-R	GMC-3.15-R
GMC-100mA	GMC-630-R	GMC-3.5-R
GMC-125mA	GMC-750-R	GMC-4-R
GMC-150mA	GMC-800-R	GMC-5-R
GMC-200mA	GMC-1-R	GMC-6-R
GMC-250mA	GMC-1.25-R	GMC-6.3-R
GMC-300mA	GMC-1.5-R	GMC-7-R
GMC-315mA	GMC-1.6-R	GMC-8-R
GMC-400mA	GMC-2-R	GMC-10-R

Data Sheet: 2018

GMD-V (axial leads)

GMD

Specifications
Description: Time-delay fuse.
Construction: Glass tube, nickel-plated brass end-caps.
Ratings:
Volts — 250Vac
Amps — 125mA-4A
IR — 10kA (125mA-3A @ 125Vac, p.f. = 0.7-0.8)
— 10kA (4A @ 125Vac, p.f. = 1.0)
— 100A (125mA-3.A @ 250Vac, p.f. = 0.7-0.8)
— 200A (4A @ 250Vac, p.f. = 1.0)

RoHS 2002/95/EC

Agency Information: CE, Std. 248-14, UL Listed Guide JDYX, File E19180, 0-3A, UL Recognized, Guide JDYX2, File E19180, 4A, CSA Certified, Class 1422-01, File 65063, 0-3A.

Features and Benefits
• Time-delay compatibility for inductive circuits.
• Conforming to UL standards.

Typical Applications
• Electronic Circuits

Catalog Numbers (Amps)

With Axial Leads		
GMD-V-125-R	GMD-V-500-R	GMD-V-1.5-R
GMD-V-150-R	GMD-V-630-R	GMD-V-1.6-R
GMD-V-200-R	GMD-V-750-R	GMD-V-2-R
GMD-V-250-R	GMD-V-800-R	GMD-V-2.5-R
GMD-V-300-R	GMD-V-1-R	GMD-V-3-R
GMD-V-315-R	GMD-V-1.2-R	GMD-V-4-R
GMD-V-400-R	GMD-V-1.25-R	
Without Axial Leads		
GMD-125-R	GMD-500-R	GMD-1.5-R
GMD-150-R	GMD-630-R	GMD-1.6-R
GMD-200-R	GMD-750-R	GMD-2-R
GMD-250-R	GMD-800-R	GMD-2.5-R
GMD-300-R	GMD-1-R	GMD-3-R
GMD-315-R	GMD-1.2-R	GMD-4-R
GMD-400-R	GMD-1.25-R	

Data Sheet:2019

COOPER Bussmann

¼" Dia. x ⅝" to 1" length ferrule fuses

AGA-V (axial leads)

AGA

Specifications
Description: Fast-acting fuse.
Dimensions: ¼" x ⅝" (6.4 x 15.9mm).
Construction: Glass tube.
Ratings:
Volts — 125Vac (or less)
Amps — 1/16-30A
IR — 10,000 (1/16-1½A @ 125Vac)
— 200A (2-5A @ 125Vac)
— 1000A (6-30A @ 32Vac)
Agency Information: CE, Std. 248-14, UL File E19180, UL Listed, Guide JDYX 0-1½A UL Recognized, Guide JDYX2 2-12A.

Features and Benefits
- Fast-acting for maximum protection.
- Size rejects insertion of other fuse types.

Typical Applications
- Electronic Circuits

Catalog Numbers (Amps)

With Axial Leads*

AGA-V-1/16	AGA-V-1	AGA-V-7 ½
AGA-V-1/10	AGA-V-1 ½	AGA-V-10
AGA-V-⅛	AGA-V-2	AGA-V-15
AGA-V-¼	AGA-V-2 ½	AGA-V-20
AGA-V-⅜	AGA-V-3	AGA-V-25
AGA-V-½	AGA-V-5	AGA-V-30
AGA-V-5/10	AGA-V-6	
AGA-V-¾	AGA-V-7	

Without Axial Leads

AGA-1/16	AGA-1	AGA-7 ½
AGA-1/10	AGA-1 ½	AGA-10
AGA-⅛	AGA-2	AGA-15
AGA-¼	AGA-2 ½	AGA-20
AGA-⅜	AGA-3	AGA-25
AGA-½	AGA-5	AGA-30
AGA-5/10	AGA-6	
AGA-¾	AGA-7	

*AGA-V is UL Listed 0-5A, UL Recognized 6-12A.

Data Sheet: 2039

AGW

Specifications
Description: Fast-acting fuse.
Dimensions: ¼" x ⅞" (6.4 x 22.2mm).
Construction: Glass tube.
Ratings:
Volts — 32Vac
Amps — 1-30A
IR — 100A

Features and Benefits
- Fast-acting for maximum protection.
- Size rejects insertion of other fuse types.

Typical Applications
- Electronic Circuits

Catalog Numbers (Amps)

AGW-1	AGW-4	AGW-15
AGW-1 ½	AGW-5	AGW-20
AGW-2	AGW-6	AGW-25
AGW-2 ½	AGW-7 ½	AGW-30
AGW-3	AGW-10	

Data Sheet: 2040

AGX-V (axial leads)

AGX

Specifications
Description: Fast-acting fuse.
Dimensions: ¼" x 1" (6.4 x 25.4mm).
Construction: Glass tube.
Ratings:
Volts — 250Vac (1/500-2A)
— 125Vac (2½-7A)
— 32V (8-30A)
Amps — 1/500-30A
IR — 35A (1/500-2A @ 250Vac)
— 10,000A (2½-7A @ 125Vac)
— 1000A (8-30A @ 32V)
Agency Information: CE, Std. 248-14, UL File E19180 UL Listed, Guide JDYX, 0-5A UL Recognized, Guide JDYX2, 6-20A CSA File 47233; Class 1422-01, 0-5A.

Features and Benefits
- Size rejects insertion of other fuse types.

Typical Applications
- Electronic Circuits

Catalog Numbers (Amps)

With Axial Leads**

AGX-V-1/500	AGX-V-⅜	AGX-V-5
AGX-V-1/200	AGX-V-5/10	AGX-V-6
AGX-V-1/100	AGX-V-½	AGX-V-7
AGX-V-1/32	AGX-V-¾	AGX-V-8
AGX-V-1/16	AGX-V-1	AGX-V-10
AGX-V-1/10	AGX-V-1 ¼	AGX-V-15
AGX-V-⅛	AGX-V-1 ½	AGX-V-20
AGX-V-3/16	AGX-V-2	AGX-V-25
AGX-V-3/10	AGX-V-2 ½	AGX-V-30
AGX-V-¼	AGX-V-3	
AGX-V-3/10	AGX-V-4	

Without Axial Leads

AGX-1/500	AGX-⅜	AGX-5
AGX-1/200	AGX-5/10	AGX-6
AGX-1/100	AGX-½	AGX-7
AGX-1/32	AGX-¾	AGX-8
AGX-1/16	AGX-1	AGX-10
AGX-1/10	AGX-1 ¼	AGX-15
AGX-⅛	AGX-1 ½	AGX-20
AGX-3/16	AGX-2	AGX-25
AGX-3/10	AGX-2 ½	AGX-30
AGX-¼	AGX-3	
AGX-3/10	AGX-4	

**AGX-V is UL Recognized from 6-20A @ 32Vac

Data Sheet: 2041

COOPER Bussmann

¼" Dia. x 1¼" length fast-acting ferrule fuses

AGC-V (axial leads)

AGC

Specifications
Description: Fast-acting fuse.
Dimensions: ¼" x 1¼" (6.4 x 31.7mm).
Construction: Glass tube with nickel-plated brass endcaps.

Ratings:
Volts — 250Vac (1/20-10A)
— 32Vac (11-45A)
Amps — 1/20-30A
IR* — 35A (1/20-1A @ 250Vac)
— 100A (1¼-3A @ 250Vac)
— 200A (4-10A @ 250Vac)
— 1000A (15-30A @ 32Vac)

*Interrupting ratings were measured at 70% – 80% power factor on AC, and at a time constant described in UL 248.

Agency Information: CE, Std. 248-14, UL Listed, Guide JDYX, File E19180, 0-10A UL Recognized, Guide JDYX2, File E19180, 15-30A CSA Certification, Class 1422-01, File 53787.

Features and Benefits
- Original electronic glass tube fuse.
- Fast-acting for maximum protection.
- Wide amp/volt ratings allow versatility of protecting electronic circuits.

Typical Applications
- Electronic Circuits

Catalog Numbers (Amps)

With Axial Leads

AGC-V-1/20	AGC-V-½	AGC-V-5
AGC-V-1/16	AGC-V-¾	AGC-V-6
AGC-V-1/10	AGC-V-1	AGC-V-7
AGC-V-⅛	AGC-V-1 ¼	AGC-V-8
AGC-V-3/16	AGC-V-1 ½	AGC-V-9
AGC-V-2/10	AGC-V-2	AGC-V-10
AGC-V-¼	AGC-V-2 ¼	AGC-V-15
AGC-V-3/10	AGC-V-2 ½	AGC-V-20
AGC-V-⅜	AGC-V-3	AGC-V-25
AGC-V-45/100	AGC-V-4	AGC-V-30

Without Axial Leads

AGC-1/20	AGC-½	AGC-5
AGC-1/16	AGC-¾	AGC-6
AGC-1/10	AGC-1	AGC-7
AGC-⅛	AGC-1 ¼	AGC-8
AGC-3/16	AGC-1 ½	AGC-9
AGC-2/10	AGC-2	AGC-10
AGC-¼	AGC-2 ¼	AGC-15
AGC-3/10	AGC-2 ½	AGC-20
AGC-⅜	AGC-3	AGC-25
AGC-45/100	AGC-4	AGC-30

Data Sheet: 2001

ABC-V (axial leads)

ABC

Specifications
Description: Fast-acting fuse.
Dimensions: ¼" x 1¼" (6.4 x 31.7mm).
Construction: Ceramic tube with nickel-plated brass endcaps.

Ratings:
Volts — 250Vac/125Vdc (¼-20A)
— 125Vac/125Vdc (25-30A)
Amps — ¼-30A
IR** — 35A (¼-1A @ 250Vac)
— 10kA (¼-20A @ 250Vdc)
— 100A (1½-3A @ 250Vac)
— 200A (4-10A @ 250Vac)
— 750A (15A @ 250Vac)
— 400A (20A @ 250Vac)
— 400A (25-30A @ 250Vdc)
— 1kA (25-30A @ 125Vac)

**Interrupting ratings were measured at 70% – 80% power factor on AC, and at a time constant described in UL 248.

Agency Information: CE, Std. 248-14 UL Listed, Guide JDYX File E19180, 0-15A UL Recognized, Guide JDYX2, File E19180, 20-25A CSA Certification, Class 1422-01, File 53787, 0-15A, Class 1422-30, File 53787, 20-25A.

Features and Benefits
- Ceramic body allows for higher amp/volt rating combinations.
- Consolidate inventory by replacing AGC fuses for reduced SKU investment and minimizing potential for misapplying fuse.

Typical Applications
- Electronic Circuits

Catalog Numbers (Amps)

With Axial Leads

ABC-V-¼	ABC-V-2½	ABC-V-8
ABC-V-½	ABC-V-3	ABC-V-10
ABC-V-¾	ABC-V-4	ABC-V-15
ABC-V-1	ABC-V-5	ABC-V-20
ABC-V-1½	ABC-V-6	ABC-V-25
ABC-V-2	ABC-V-7	ABC-V-30

Without Axial Leads

ABC-¼	ABC-2½	ABC-8
ABC-½	ABC-3	ABC-10
ABC-¾	ABC-4	ABC-15
ABC-1	ABC-5	ABC-20
ABC-1½	ABC-6	ABC-25
ABC-2	ABC-7	ABC-30

Data Sheet: 2000

GBB-V (axial leads)

GBB

Specifications
Description: Very fast-acting fuse.
Dimensions: ¼" x 1¼" (6.4 x 31.7mm).
Construction: Ceramic cartridge with nickel-plated brass endcaps.

Ratings:
Volts — 250Vac/125Vdc
Amps — 1-30A
IR — 200A @ 250Vac
— 200A (20-30A @ 125Vac/dc)
— 10,000A (1A -15A @ 125Vac/dc)

Agency Information: CE, Std. 248-14, UL Recognized, 1-30, 125Vdc/250Vac, File E56412, Guide JFHR2, CSA Certified, 1-10, 125Vdc/250Vac, File 53787, Class 1422-01.

Features and Benefits
- Very fast-acting performance allows protection of highly sensitive electronic circuitry.

Typical Applications
- Electronic Circuits

Catalog Numbers (Amps)

With Axial Leads

GBB-V-1	GBB-V-6	GBB-V-15
GBB-V-1 ¼	GBB-V-7	GBB-V-20
GBB-V-2	GBB-V-8	GBB-V-25
GBB-V-3	GBB-V-9	GBB-V-30
GBB-V-4	GBB-V-10	
GBB-V-5	GBB-V-12	

Without Axial Leads

GBB-1	GBB-6	GBB-15
GBB-1 ¼	GBB-7	GBB-20
GBB-2	GBB-8	GBB-25
GBB-3	GBB-9	GBB-30
GBB-4	GBB-10	
GBB-5	GBB-12	

Data Sheet: 2013

¼" Dia. x 1¼" length time-delay ferrule fuses

MDL-V (axial leads)

MDL

Specifications
Description: Time-delay fuse.
Dimensions: ¼" x 1¼" (6.4 x 31.7mm).
Construction: Glass tube with nickel-plated brass endcaps.

Ratings:

Volts — 250Vac (1/16-8A)
— 32Vac (9-30A)
Amps — 1/16-30A
IR* — 35A (1/16-1A @ 250Vac)
— 100A (1¼-3A @ 250Vac)
— 200A (4-8A @ 250Vac)
— 1000A (9-30A @ 32Vac)

*Interrupting ratings were measured at 70% – 80% power factor on ac, and at a time constant described in UL 198L.

Agency Information: CE, Std. 248-14, UL Listed, Guide JDYX, File E19180; 1/16-8A CSA Certification Class 1422-01, File 53787, 1/16-8A, UL Recognized, Guide JDYX2, File E19180, 8.1-30A.

Features and Benefits
- Time-delay allows close sizing on inductive circuits.
- Broad amp size range allows improved compatibility between fuse and circuit operating characteristics.

Typical Applications
- Electronic Circuits

Catalog Numbers (Amps)

With Axial Leads

MDL-V-1/16	MDL-V-1	MDL-V-7
MDL-V-1/10	MDL-V-1 1/4	MDL-V-8
MDL-V-1/8	MDL-V-1 1/2	MDL-V-9
MDL-V-2/10	MDL-V-2	MDL-V-10
MDL-V-3/16	MDL-V-2 1/4	MDL-V-12
MDL-V-1/4	MDL-V-2 1/2	MDL-V-15
MDL-V-3/10	MDL-V-3	MDL-V-20
MDL-V-3/8	MDL-V-4	MDL-V-25
MDL-V-1/2	MDL-V-5	MDL-V-30
MDL-V-3/4	MDL-V-6	

Without Axial Leads

MDL-1/16	MDL-1	MDL-7
MDL-1/10	MDL-1 1/4	MDL-8
MDL-1/8	MDL-1 1/2	MDL-9
MDL-2/10	MDL-2	MDL-10
MDL-3/16	MDL-2 1/4	MDL-12
MDL-1/4	MDL-2 1/2	MDL-15
MDL-3/10	MDL-3	MDL-20
MDL-3/8	MDL-4	MDL-25
MDL-1/2	MDL-5	MDL-30
MDL-3/4	MDL-6	

Data Sheet:2004

MDQ-V (axial leads)

MDQ

Specifications
Description: Dual-element, time-delay fuse.
Dimensions: ¼" x 1¼" (6.4 x 31.7mm).
Construction: Glass tube with nickel-plated brass endcaps.

Ratings:

Volts — 250Vac (1/100-7A)
— 32Vac (7½-15A)
Amps — 1/100-15A
IR — 35A (1/100-1A @ 250Vac)
— 100A (1¼-3A @ 250Vac)
— 200A (4-7A @ 250Vac)
— 1000A (7½-12A @ 32Vac)

Agency Information: CE, Std. 248-14, UL Listed, File E19180; Guide JDYX, 1/16-7A CSA Certification, File 47233, Class 1422-01, 1/16 -7A, UL Recognized, Guide JDYX2, File E19180, 7.1-30A.

Features and Benefits
- Dual-element design allows closer sizing to inductive circuits than any other fuses.

Typical Applications
- Electronic Relay and Control Circuits

Catalog Numbers (Amps)

With Axial Leads

MDQ-V-1/100	MDQ-V-3/10	MDQ-V-1 1/2	MDQ-V-5
MDQ-V-1/32	MDQ-V-3/8	MDQ-V-1 9/10	MDQ-V-6
MDQ-V-1/16	MDQ-V-4/10	MDQ-V-1 9/10	MDQ-V-6 1/4
MDQ-V-1/10	MDQ-V-1/2	MDQ-V-2	MDQ-V-7
MDQ-V-1/8	MDQ-V-5/10	MDQ-V-2 1/4	MDQ-V-7½
MDQ-V-15/100	MDQ-V-3/4	MDQ-V-2 1/2	MDQ-V-8
MDQ-V-175/1000	MDQ-V-9/10	MDQ-V-2 9/10	MDQ-V-9
MDQ-V-3/16	MDQ-V-1	MDQ-V-3	MDQ-V-10
MDQ-V-3/10	MDQ-V-1 3/10	MDQ-V-3 3/10	MDQ-V-12
MDQ-V-1/4	MDQ-V-1 1/4	MDQ-V-4	MDQ-15

Without Axial Leads

MDQ-1/100	MDQ-3/10	MDQ-1 1/2	MDQ-5
MDQ-1/32	MDQ-3/8	MDQ-1 9/10	MDQ-6
MDQ-1/16	MDQ-4/10	MDQ-1 9/10	MDQ-6 1/4
MDQ-1/10	MDQ-1/2	MDQ-2	MDQ-7
MDQ-1/8	MDQ-5/10	MDQ-2¼	MDQ-7½
MDQ-15/100	MDQ-3/4	MDQ-2½	MDQ-8
MDQ-175/1000	MDQ-9/10	MDQ-2 9/10	MDQ-9
MDQ-3/16	MDQ-1	MDQ-3	MDQ-10
MDQ-3/10	MDQ-1 3/10	MDQ-3 3/10	MDQ-12
MDQ-1/4	MDQ-1 1/4	MDQ-4	MDQ-15

Data Sheet: 2044

MDA-V (axial leads)

MDA

Specifications
Description: Time-delay fuse.
Dimensions: ¼" x 1¼" (6.4 x 31.7mm).
Construction: Ceramic tube with nickel-plated brass endcaps.

Ratings:

Volts — 250Vac (or less)
— 125Vdc (20A- 30A)
Amps — 2/10-30A
IR** — 35A (2/10-1A @ 250Vac)
— 100A (2½-3A @ 250Vac)
— 200A (4-10A @ 250Vac)
— 1500A (15-30A @ 250Vac)
— 10,000A (20-30A @ 125Vdc)

**Interrupting ratings were measured at 70% – 80% power factor on ac, and at a time constant described in UL 248.

Agency Information: CE, Std. 248-14, UL Listed, Guide JDYX, File E19180, 0-15A CSA Certification, Class 1422-01, File 53787, 0-15A.

Features and Benefits
- Ceramic body allows for higher amp/volt rating combinations.
- Inventory consolidation by replacing MDL fuses allows for reduced SKU investment and minimizing potential for misapplying fuse.

Typical Applications
- Electronic Circuits

Catalog Numbers (Amps)

With Axial Leads

MDA-V-3/10	MDA-V-2 1/2	MDA-V-10
MDA-V-1/4	MDA-V-3	MDA-V-12
MDA-V-1/2	MDA-V-4	MDA-V-15
MDA-V-3/4	MDA-V-5	MDA-V-20
MDA-V-1	MDA-V-6	MDA-V-25
MDA-V-1 1/2	MDA-V-7	MDA-V-30
MDA-V-2	MDA-V-8	

Without Axial Leads

MDA-2/10	MDA-2 1/2	MDA-10
MDA-3/4	MDA-3	MDA-12
MDA-1/2	MDA-4	MDA-15
MDA-3/4	MDA-5	MDA-20
MDA-1	MDA-6	MDA-25A
MDA-1 1/2	MDA-7	MDA-30A
MDA-2	MDA-8	

Data Sheet: 2002

PC board mount fuse holders

HTC-45M

PCB Vertical Mount

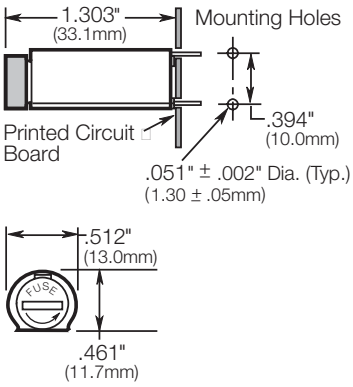
Specifications
Description: PCB vertical mount bayonet cap and fuse holder.

Dimensions: See Dimensions illustration.

Ratings:

See Specifications table.

Dimensions



RoHS 2002/95/EC

Data Sheet 2110

HTC-50M

PCB Horizontal Mount

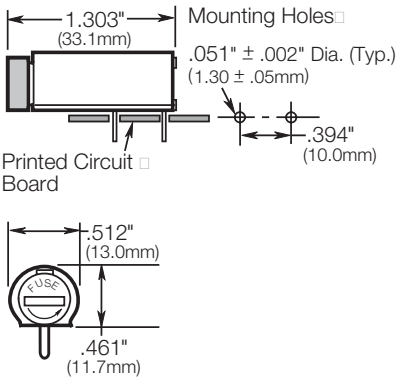
Specifications
Description: PCB horizontal mount bayonet cap and fuse holder.

Dimensions: See Dimensions illustration.

Ratings:

See Specifications table.

Dimensions



RoHS 2002/95/EC

Data Sheet 2110

HTC-60M, HTC-65M

PCB Stand-Off Mount

Specifications
Description: Two-leg (HTC-60M) and four-leg (HTC-65M) PCB stand-off fuse holder.

Dimensions: See Dimensions illustration.

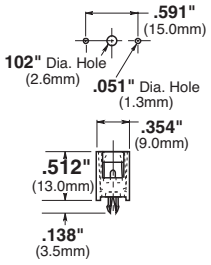
Construction: Valox DR48 body material,phosphor bronze terminals.

Ratings:

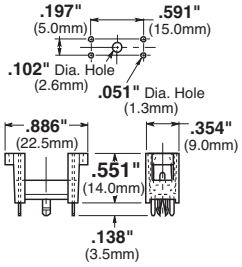
Volts: — 250V
Amps: — 6.3A

Dimensions

HTC-60M (2-leg)



HTC-65M (4-Leg)



RoHS 2002/95/EC

Data Sheet 2110

Specifications

Volts:	250V
Amps:	6.3A
Terminals:	For HTC-45M, HTC-50M Tin-plated.
Molded Materials:	High temperature thermoplastic that meets the flammability ratings of UL 94V0; Glow Wire Test: 960°C per IEC 60695-2-1.
Solderability:	In accordance with IEC 68-2-20.
Electrical:	Contact Resistance: ≤ 10mΩ; Insulation Resistance: ≥ 10mΩ; Dielectric Strength ≥ 2000 Vac.
Shock Safety:	PC2 (fuse holders).
Agency Information:	CE, HTC-45M, HTC-50M UL Recognized, (Guide IZLT2, File E14853; 6.3A, 250V; CSA Certified, (Class 6225-01, File 47235; 6.3A, 250V) SEMKO: (9226032; 6.3A, 250V).
Packaging:	Standard Qty 10 (No Prefix), Bulk Qty 100 (Prefix Catalog Number with BK/).

For product data sheets, visit www.cooperbussmann.com/products/datasheet.asp

PC board mount fuse holders

HBH-I (for ¼" x 1¼" fuses)

HBH-M (for 5 x 20mm fuses)

PCB Horizontal Mount

Specifications

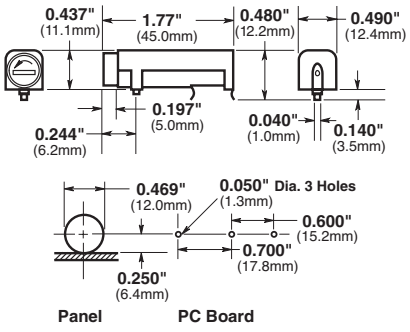
Description: PCB horizontal mount fuse holder.

Dimensions: See Dimensions illustration.

Ratings:

See Specifications table.

Dimensions



Data Sheet: 2118

HBV-I (for ¼" x 1¼" fuses)

HBV-M (for 5 x 20mm fuses)

PCB Vertical Mount with Stability Pins

Specifications

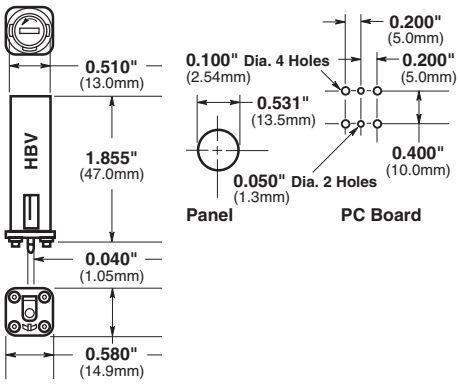
Description: PCB vertical mount fuse holder with stability pins.

Dimensions: See Dimensions illustration.

Ratings:

See Specifications table.

Dimensions



Data Sheet: 2118

HBW-I (for ¼" x 1¼" fuses)

HBW-M (for 5 x 20mm fuses)

PCB Vertical Mount without Stability Pins

Specifications

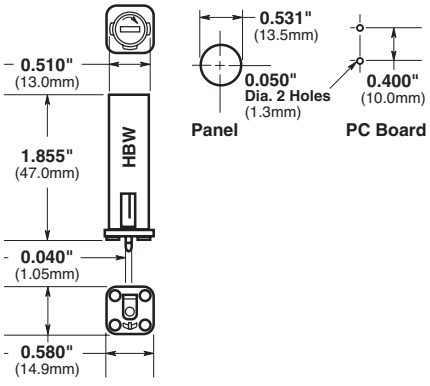
Description: PCB vertical mount fuse holder without stability pins.

Dimensions: See Dimensions illustration.

Ratings:

See Specifications table.

Dimensions



Data Sheet: 2118

FBI

FBM

Fuse Holder Caps (Fit all three shown above)

Specifications

Electrical Ratings:	UL — 16A @ 250V; CSA — 12A @ 250V; VDE — 6.3A @ 250V; SEMKO — 10A @ 250V Insulation resistance — 10,000 megohm at 500Vdc. Contact resistance — less than 0.005 ohms @ 20mV. Dielectric strength — over 200V/mil.
Molded Material:	High dielectric molded phenolic with a UL 94VO flammability rating.
Fuse Carrier & Knob:	Spring-loaded, bayonet-type. Tin plated brass. Screwdriver slotted.
Mounting:	"Kicked" terminals (all models) and stabilizer pins on HBV model for increased stability.
Environmental:	Maximum operating temperature — (-40°C to +85°C).
Agency Information:	CE, UL Recognized — Guide IZLT2, File EI4853; CSA Certified — Class 6225-01, File 47235 VDE — 41421 SEMKO — 9308147 (HBH, HBV) 9222106 (HBW)

PC board fuseclips for 5mm diameter fuses

HTC-15M, HTC-140M

PCB Mounted Fuse Holder & Snap-On Cover

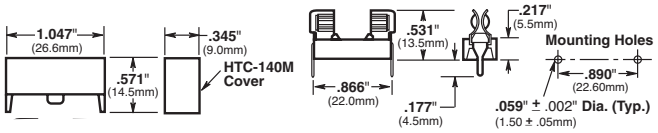
RoHS 2002/95/EC

Voltage Rating: 250V, 6.3A, 1.6W

HTC-15M (fuse holder), HTC-140M (natural cover), HTC-150M* (transparent cover)

*Available in bulk only. Use this format: BK/HTC-150M

Data Sheet: 2110



HTC-200M

PCB Mounted Fuseclip

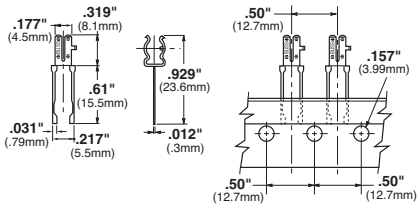
RoHS 2002/95/EC

Construction: Tin-plated bronze

Tape and Fan Fold packed

Ammo Pack (AP/HTC-200M) 1000 pieces per box

Data Sheet: 2110

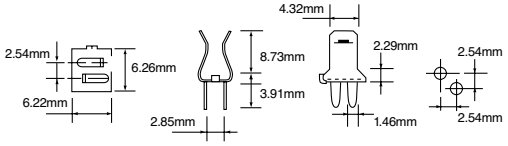


HTC-210M

PCB Mounted Fuseclip with End Stops

RoHS 2002/95/EC

Data Sheet: 2110



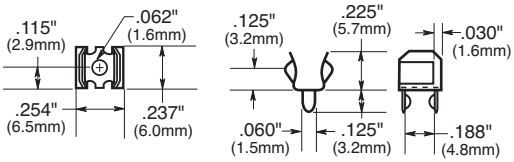
1A3399 Series

PCB Fuseclips with End Stops & Straight Leads

Catalog Numbers	Clip Material*	Finish
1A3399-01	Beryllium copper*	Silver
1A3399-04	Beryllium copper*	Bright tin
1A3399-10	Spring bronze	Bright tin

*Beryllium copper recommended for amps higher than 15 amps (¼" clips).

Data Sheet: 2131



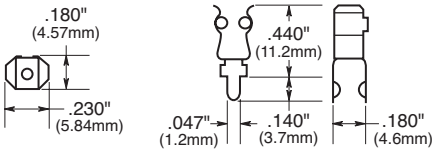
1A5018 Series

PCB High Profile Fuseclips with End Stops & Straight Leads

Catalog Numbers	Clip Material*	Finish
1A5018-7	Spring bronze	Silver
1A5018-10	Spring bronze	Bright tin

*Beryllium copper recommended for amps higher than 15 amps (¼" clips).

Data Sheet: 2131

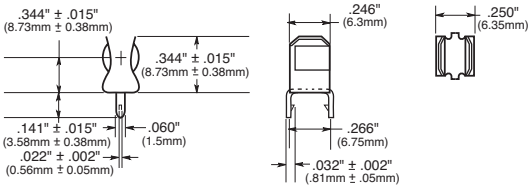


1A5601 Series

PCB Fuseclips (0-7A)

Catalog Number	Clip Material	Finish
1A5601	Cartridge brass	Bright tin

Data Sheet: 2131

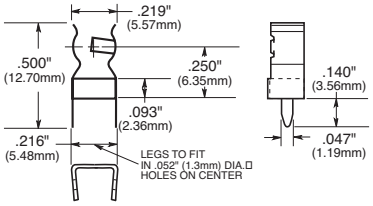


1A5602 Series

PCB Fuseclips (0-7A)

Catalog Number	Clip Material	Finish
1A5602	Cartridge brass	Bright tin

Data Sheet: 2131



COOPER Bussmann

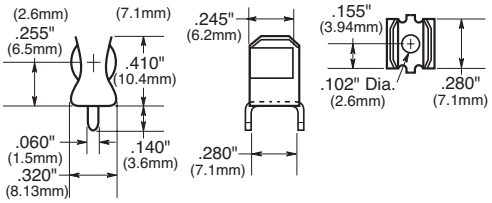
PC board fuseclips for ¼" diameter fuses

1A3398 Series

PCB Fuseclips without End Stops or Straight Leads

Catalog Numbers	Clip Material	Finish
1A3398-07	Cartridge brass	Bright tin
1A3398-08	Spring bronze	Bright tin

Data Sheet: 2131



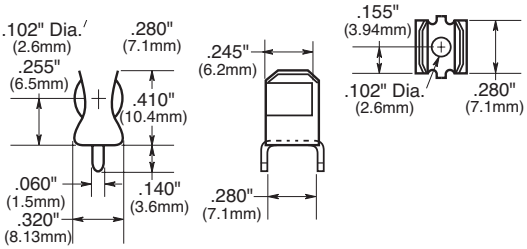
1A1907 Series

PCB Fuseclips with End Stops & Straight Leads

Catalog Numbers	Clip Material*	Finish
1A1907-02	Cartridge brass	None/bright dipped
1A1907-03	Beryllium copper*	Bright tin
1A1907-05	Beryllium copper*	Silver
1A1907-06	Cartridge brass	Bright tin
1A1907-08	Spring bronze	None/bright dipped
1A1907-09	Spring bronze	Bright tin

*Beryllium copper recommended for amps higher than 15A ¼" clips).

Data Sheet: 2131



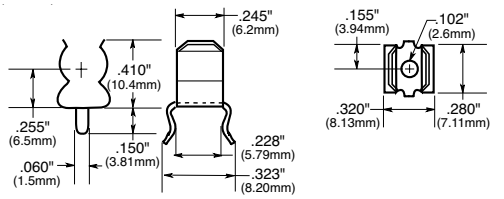
1A4533 Series

PCB Fuseclips without End Stops or Angled Out Leads

Catalog Numbers	Clip Material*	Finish
1A4533-01	Beryllium copper*	Bright tin
1A4533-06	Cartridge brass	Bright tin
1A4533-07	Spring bronze	Bright tin

*Beryllium copper recommended for amps higher than 15A (¼" clips).

Data Sheet: 2131



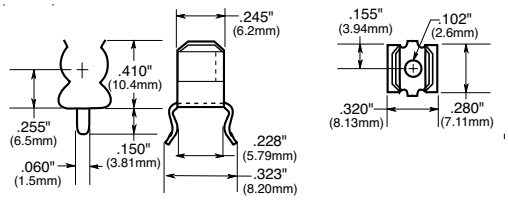
1A4534 Series

PCB Fuseclips with End Stops & Angled Out Leads

Catalog Numbers	Clip Material*	Finish
1A4534-01	Beryllium copper*	Bright tin
1A4534-06	Cartridge brass	Bright tin
1A4534-07	Spring bronze	Bright tin

*Beryllium copper recommended for amps higher than 15A (¼" clips).

Data Sheet: 2131



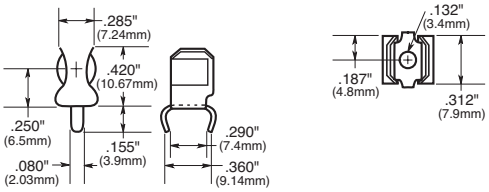
1A1119 Series

Fuseclips with End Stops & Angled In Leads

Catalog Numbers	Clip Material*	Finish
1A1119-04	Beryllium copper*	Bright tin
1A1119-05	Beryllium copper*	Silver
1A1119-10	Cartridge brass	Bright tin
1A1119-13	Spring bronze	Bright tin

*Beryllium copper recommended for amps higher than 15A (¼" clips).

Data Sheet: 2131



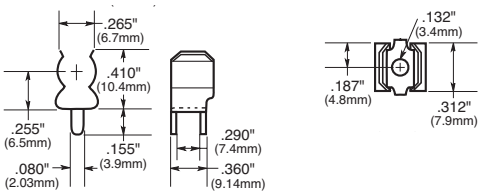
1A1120 Series

PCB Fuseclips without End Stops or Angled In Leads

Catalog Numbers	Clip Material*	Finish
1A1120-02	Cartridge brass	None/bright dipped
1A1120-05	Beryllium copper*	Silver
1A1120-06	Beryllium copper*	Bright tin
1A1120-09	Cartridge brass	Bright tin
1A1120-11	Spring bronze	None/bright dipped
1A1120-12	Spring bronze	Bright tin

*Beryllium copper recommended for amps higher than 15A (¼" clips).

Data Sheet: 2131



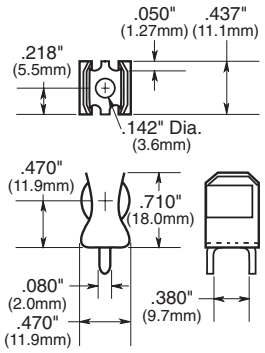
PC Board fuseclips for 13/32" diameter and ATC® fuses

1A3400 Series

PCB Fuseclips for 13/32" diameter fuses with End Stops & Straight Leads

Catalog Number	Amp Rating	Clip Material	Finish
1A3400-09	20A Max.	Spring bronze	Bright tin

Data Sheet 2131

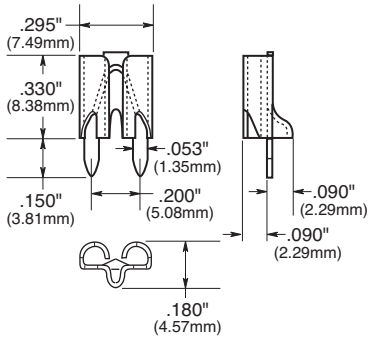


1A5600 Series

PCB Fuseclips for ATC® Fuses (0-20A)

Catalog Number	Clip Material	Finish
1A5600	Brass	Satin finish tin

Data Sheet 2131



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PC Board fuseclips for ¼", 9/32", 13/32" and 9/16" diameter fuses

5681 & 5682 Series

PCB Fuseclips with Mounting Holes For ¼" Diameter Fuses

Catalog Numbers

Catalog Numbers	End Stop	Clip Mat.**	Finish	Dimensions (in) B (To End Stop)	C (Contact)	D (Height)	E (Width)	Hole Dia.	Fig. Ref.
5681-08	No	Spg. Br.	Nickel	†	0.265	0.410	0.320	0.132	2
5681-15		Spg. Br.	Bright tin						
5682-01		BeCU	Silver	0.106					
5682-02	Yes	BeCU	Silver	0.132					
5682-41		Spg. Br.	Bright tin	0.106	0.260	0.410	0.320	0.132	1
5682-44		Spg. Br.	Bright tin	0.132					

**Spg. Br. — Spring Bronze; BeCU — Beryllium Copper.
†Hole in center of both clip and contact area.

Data Sheet: 2132

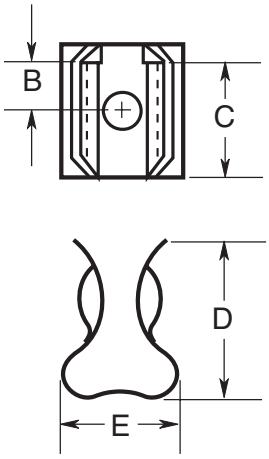


FIGURE 1

5672 & 5674 Series

PCB Fuseclips with Mounting Holes For 9/32" Diameter Fuses

Catalog Numbers	End Stop	Clip Mat.**	Finish	Dimensions (in) B (To End Stop)	C (Contact)	D (Height)	E (Width)	Hole Dia.	Fig. Ref.
5672-11	No	Spg. Br.	Bright tin	†	0.362	0.520	0.380	0.172	2
5674-01		BeCU	Silver						
5674-10	Yes	BeCU	Bright tin	0.168	0.356	0.520	0.380	0.172	1
5674-41		Spg. Br.	Bright tin						

**Spg. Br. — Spring Bronze; BeCU — Beryllium Copper.
†Hole in center of both clip and contact area.

Data Sheet: 2132

5956 & 5960 Series

PCB Fuseclips with Mounting Holes For 13/32" Diameter Fuses

Catalog Numbers	End Stop	Clip Mat.**	Finish	Dimensions (in) B (To End Stop)	C (Contact)	D (Height)	E (Width)	Hole Dia.	Fig. Ref.
5956-16	No	Spg. Br.	Bright tin	†	0.312	0.710	0.470	0.172	2
5960-07		BeCU	Silver	0.168				0.196	
5960-09		BeCU	Silver	0.200				0.172	
5960-51	Yes	Spg. Br.	Bright dip*	0.168	0.389	0.710	0.470	0.196	1
5960-53		Spg. Br.	Bright dip*	0.200				0.172	
5960-61		Spg. Br.	Bright tin	0.168				0.196	
5960-62		Spg. Br.	Bright tin	0.168				0.132	
5960-63		Spg. Br.	Bright tin	0.200				0.172	
5960-64		Spg. Br.	Bright tin	0.200				0.128	

*Bright dip is actually treated bare metal with no plating.
**Spg. Br. = Spring Bronze; BeCU = Beryllium Copper.
†Hole in center of both clip and contact area.

Data Sheet: 2132

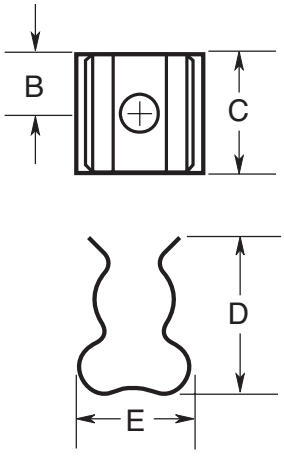


FIGURE 2

5591 & 5592 Series

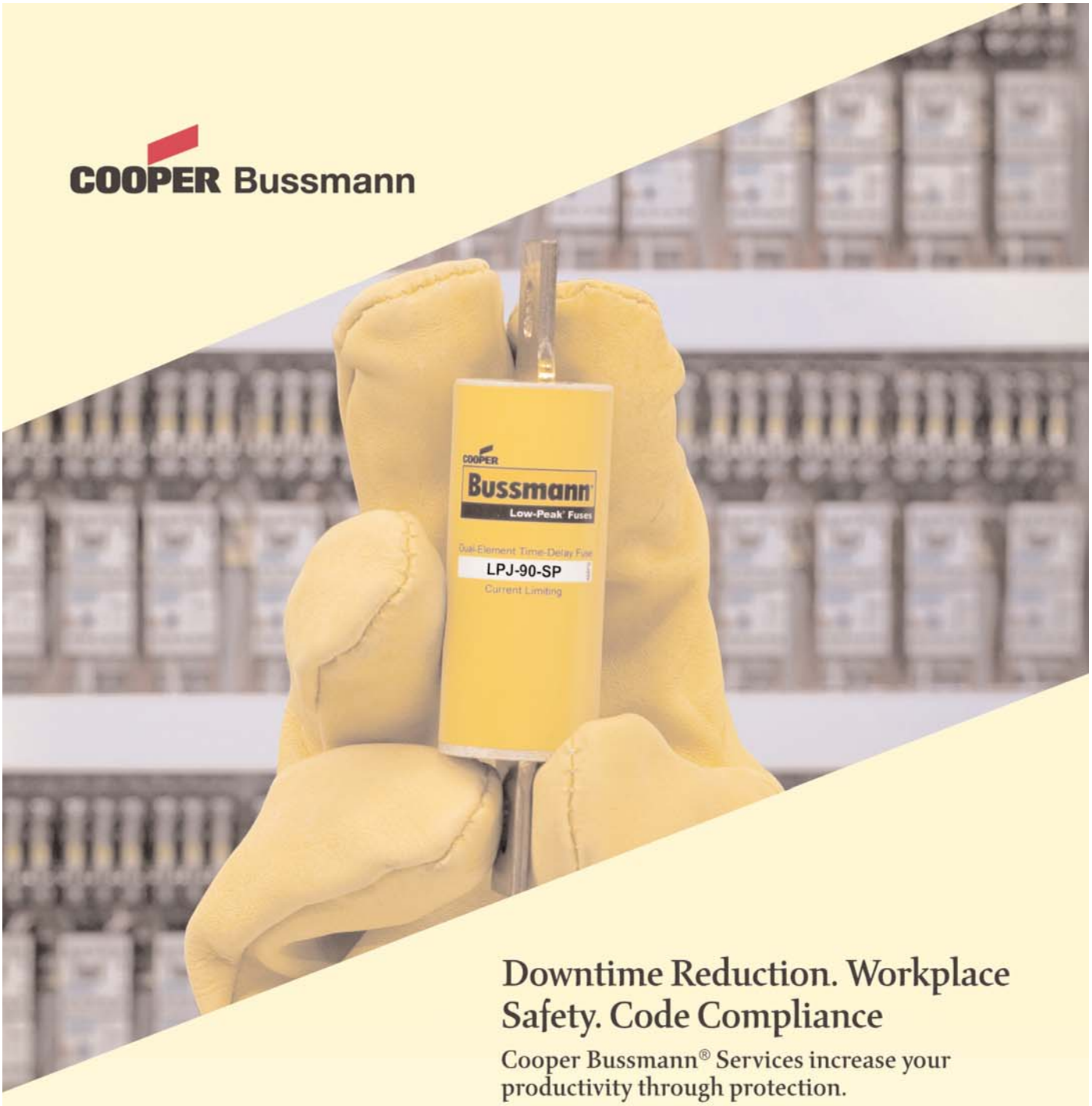
PCB Fuseclips with Mounting Holes For 9/16" Diameter Fuses

Catalog Number	End Stop	Clip Mat.**	Finish	Dimensions (in) B (To End Stop)	C (Contact)	D (Height)	E (Width)	Hole Dia.	Fig. Ref.
5591-42	Yes	Spg. Br.	Bright dip*	0.260	0.510	0.890	0.600	0.172	1
5592-01		BeCU	Silver					0.200	
5592-11	No	Spg. Br.	Silver	†	0.505	0.890	0.600	0.200	2
5592-33		Spg. Br.	Bright dip*					0.172	

*Bright Dip is actually treated bare metal with no plating.
**Spg. Br. — Spring Bronze; BeCU — Beryllium Copper.
†Hole in center of both clip and contact area.

Data Sheet: 2132

COOPER Bussmann



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