SinglFuse™

SMD Fuse Brochure

BOURNS®

Bourns® SinglFuse™ SMD Fuses Product Overview

INTRODUCTION

Bourns® SinglFuse™ SMD fuses provide effective overcurrent protection in standard surface mount footprint sizes ranging from 0402 (1005 metric) to 3812 (10030 metric), and include a variety of fusing speeds, current and voltage ratings, and rated operating temperatures. The breadth of Bourns' comprehensive line of SMD fuses provides suitable overcurrent protection solutions for applications including, but not limited to, automotive*, battery management systems, power supplies, DC-DC converters, consumer electronics, telecom systems, industrial controllers and battery chargers.

HOW TO ORDER

SF - 2410 FP A 100 W - 2

SinglFuse™ SMD Fuse Product Designator

SMD Footprint

SMD Size Code (3812, 2923, 2410, 1206, 0603, 0402)

Fusing Time & Fuse Category

FP/FR = 5 Sec. Max. @ 200 % I_n	HI = 1 - 60 Sec. @ 200 % I_n	SP = 1 - 120 Sec. @ 200 % I_n
S/SC = 5 Sec. Max. @ 250 % I_n	F/FG = 60 Sec. Max. @ 200 % I_n	TL = 120 Sec. Max. @ 250 % I_n
HH/HV = 5 Sec. Max. @ 350 % I_n	HC = 60 Sec. Max. @ 250 % I_n	TM = 1 - 120 Sec. @ 250 % I_n

Automotive Grade*

Rating Current

e.g., "010" = 0.10 A, "100" = 1.00 A, "1000" = 10.00 A, etc.

Fuse Structure Type

Blank = Thin Film Ceramic	W = Wire Core/PCB	T/TS = Wire Core/Ceramic	R = Metal Foil
F = Thin Film PCB	M = Multilayer Ceramic	C = Ceramic Cube	

Packaging Type

2 = Tape & Reel Packaging

*Meets AEC-Q200 Revision E.

SINGLFUSE™ SMD FUSE PRODUCT LINE CHART

Technology	Series	General Purpose								Automotive Grade*			
		0402	0603	1206		2410		3812	2923	0603	1206		2410
Thin Film (PCB)	SF-xxxx-F	0.15 A	5 A										
Thin Film (Ceramic)	SF-xxxx	0.315 A		7 A									
Metal Foil	SF-xxxx-R SF-xxxx-A-R		1 A	30 A						1 A	30 A		
Multilayer (Ceramic)	SF-xxxx-M SF-xxxx-A-M	0.5 A		40 A						0.5 A	8 A		
Wire Core (PCB)	SF-xxxx-W SF-xxxx-A-W				0.5 A	20 A						1 A	20 A
Wire Core (Ceramic)	SF-xxxx-T SF-xxxx-TS						0.62 A	60 A					
Ceramic Tube	SF-xxxx-C								20 A	50 A			

*Meets AEC-Q200 Revision E.

General Purpose Singlfuse™ SMD Fuses

0402 FOOTPRINT

Model Series	Photo	Fusing Characteristic	Rated Current/Voltage	Rated Temperature	Agency Recognition
SF-0402FP-F		200 % I_r in 5 sec.	0.2 A 35 VDC 5 A	–55 °C to +90 °C	UL
SF-0402F		200 % I_r in 60 sec.	0.315 A 32 VDC 4 A	–20 °C to +105 °C	UL
SF-0402FP		200 % I_r in 5 sec.	0.5 A 32 VDC 4 A	–20 °C to +105 °C	UL
SF-0402FR		200 % I_r in 5 sec.	0.63 A 32 VDC 5 A	–20 °C to +105 °C	UL
SF-0402S		250 % I_r in 5 sec.	0.5 A 32 VDC 4 A	–20 °C to +105 °C	UL
SF-0402S-M		250 % I_r in 5 sec.	0.5 A 24 VDC 4 A	–55 °C to +125 °C	UL

0603 FOOTPRINT

Model Series	Photo	Fusing Characteristic	Rated Current/Voltage	Rated Temperature	Agency Recognition
SF-0603FP-F		200 % I_r in 5 sec.	0.15 A 35 VDC 5 A	–55 °C to +90 °C	UL
SF-0603HI-F		200 % I_r in 60 sec.	0.5 A 35 VDC 4 A	–55 °C to +90 °C	UL
SF-0603F		200 % I_r in 60 sec.	0.4 A 32/50 VDC 4 A	–20 °C to +105 °C	UL
SF-0603FP		200 % I_r in 5 sec.	0.5 A 32/50 VDC 5 A	–20 °C to +105 °C	UL
SF-0603S		250 % I_r in 5 sec.	0.4 A 32/50 VDC 6 A	–20 °C to +105 °C	UL
SF-0603SP		200 % I_r in 1 – 120 sec.	0.5 A 32/50 VDC 6 A	–20 °C to +105 °C	UL
SF-0603SP-R		200 % I_r in 1 – 120 sec.	1 A 50/63 VDC 8 A	–55 °C to +125 °C	UL
SF-0603FP-M		200 % I_r in 5 sec.	0.5 A 32 VDC 5 A	–55 °C to +125 °C	UL
SF-0603HI-M		200 % I_r in 60 sec.	1 A 32 VDC 8 A	–55 °C to +125 °C	UL
SF-0603S-M		250 % I_r in 5 sec.	0.5 A 24/32/63 VDC 6 A	–55 °C to +125 °C	UL
SF-0603SP-M		200 % I_r in 1 – 120 sec.	1 A 32 VDC 8 A	–55 °C to +125 °C	UL

General Purpose Singlfuse™ SMD Fuses

1206 FOOTPRINT

Model Series	Photo	Fusing Characteristic	Rated Current/Voltage	Rated Temperature	Agency Recognition
SF-1206F		200 % I_r in 60 sec.	0.5 A – 32/63 VDC – 7 A	–20 °C to +105 °C	UL
SF-1206FP		200 % I_r in 5 sec.	0.5 A – 32/63 VDC – 7 A	–20 °C to +105 °C	UL
SF-1206S		250 % I_r in 5 sec.	0.5 A – 32/63 VDC – 7 A	–20 °C to +105 °C	UL
SF-1206SP		200 % I_r in 1 – 120 sec.	0.5 A – 32/63 VDC – 7 A	–20 °C to +105 °C	UL
SF-1206S-R		250 % In in 5 sec.	10 A – 32 VDC – 20 A	–55 to +125 °C	UL
SF-1206HH-R		350 % In in 1 sec.	8 A – 50 VDC – 30 A	–55 to +150 °C	UL

Model Series	Photo	Fusing Characteristic	Rated Current/Voltage	Rated Temperature	Agency Recognition
SF-1206F-M		200 % I_r in 60 sec.	2.5 A – 48/65 VDC – 8 A	–55 °C to +125 °C	UL
SF-1206HI-M		200 % Ir in 60 sec.	0.5 A – 24/32/63 VDC – 8 A	–55 °C to +125 °C	UL
SF-1206S-M		250 % I_r in 5 sec.	0.5 A – 24/32/63 VDC – 8 A	–55 °C to +125 °C	UL
SF-1206SP-M		200 % I_r in 1 – 120 sec.	1 A – 24/32/63 VDC – 8 A	–55 °C to +125 °C	UL
SF-1206HH-M		350 % I_r in 5 sec.	10 A – 24 VDC – 30 A	–55 °C to +125 °C	UL
SF-1206HV-M		350 % I_r in 5 sec.	10 A – 35 VDC – 40 A	–55 °C to +125 °C	UL
SF-1206S-W		250 % I_r in 5 sec.	1.5 A – 32/65 VDC – 15 A	–55 °C to +125 °C	UL / TÜV

General Purpose Singlfuse™ SMD Fuses

2410 FOOTPRINT

Model Series	Photo	Fusing Characteristic	Rated Current/Voltage	Rated Temperature	Agency Recognition
SF-2410FP-W		200 % I_r in 5 sec.	0.5 A – 125 VDC – 125/250VAC – 10 A	–55 °C to +125 °C	UL / TÜV
SF-2410F-W		200 % I_r in 20 sec.	12 A – 65 VDC – VAC – 20 A	–55 °C to +125 °C	UL
SF-2410SP-W		200 % I_r in 1 – 120 sec.	0.5 A – 250 VAC – 2 A	–55 °C to +125 °C	UL / VDE
SF-2410FP-T		200 % I_r in 5 sec.	62 mA – 125 VAC – 10 A	–55 °C to +125 °C	UL
SF-2410F-T		200 % I_r in 60 sec.	12 A – 65/86 VDC – VAC – 25 A	–55 °C to +125 °C	UL
SF-2410HI-T		200 % I_r in 60 sec.	0.375 A – 125 VAC – 7 A	–55 °C to +125 °C	UL

3812 FOOTPRINT

Model Series	Photo	Fusing Characteristic	Rated Current/Voltage	Rated Temperature	Agency Recognition
SF-3812FG-T		200 % I_r in 60 sec.	20 A – 125 VAC – 30 A	–55 °C to +125 °C	UL
SF-3812TL-T		250 % I_r in 120 sec.	0.5 A – 250 VAC – 5 A	–55 °C to +125 °C	UL / TÜV
SF-3812TL-TS		250 % I_r in 120 sec.	0.5 A – 250 VAC – 5 A	–55 °C to +125 °C	UL / TÜV
SF-3812SP-T		200 % I_r in 120 sec.	1.25 A – 250 VAC	–55 °C to +125 °C	UL / TÜV
SF-3812F-T		200 % I_r in 60 sec.	10 A – 250 VAC – 60 A	–55 °C to +125 °C	UL
SF-3812TM-T		250 % I_r in 1 – 120 sec.	0.5 A – 600 VAC – 2 A	–55 °C to +125 °C	UL

2923 FOOTPRINT

Model Series	Photo	Fusing Characteristic	Rated Current/Voltage	Rated Temperature	Agency Recognition
SF-2923HC-C		250 % I_r in 60 sec.	20 A – 60 VDC – 50 A	–55 °C to +125 °C	UL

Auto-Grade* Singlfuse™ SMD Fuses

0603 FOOTPRINT

Model Series	Photo	Fusing Characteristic	Rated Current/Voltage	Rated Temperature	Agency Recognition
SF-0603SPA-R		200 % Ir in 1 – 120 sec.	1 A 50/63 VDC 8 A	–55 °C to +150 °C	UL / TÜV
SF-0603HIA-M		200 % I_r in 1 – 60 sec.	1 A 32 VDC 5 A	–55 °C to +125 °C	UL
SF-0603SA-M		250 % I_r in 5 sec.	0.5 A 24/32/65 VDC 8 A	–55 °C to +150 °C	UL

1206 FOOTPRINT

Model Series	Photo	Fusing Characteristic	Rated Current/Voltage	Rated Temperature	Agency Recognition
SF-1206SA-R		250 % I_r in 5 sec.	10 A 32 VDC 20 A	–55 °C to +150 °C	UL
SF-1206HHA-R		350 % Ir in 1 sec.	8 A 50 VDC 30 A	–55 °C to +125 °C	UL
SF-1206HIA-M		200 % Ir in 60 sec.	0.5 A 24/32/65 VDC 6 A	–55 °C to +150 °C	UL
SF-1206SA-M		250 % I_r in 5 sec.	0.5 A 65 VDC 5 A	–55 °C to +150 °C	UL
SF-1206SA-W		250 % I_r in 5 sec.	1.5 A 32/65/110 VDC 15 A	–55 °C to +125 °C	UL

2410 FOOTPRINT

Model Series	Photo	Fusing Characteristic	Rated Current/Voltage	Rated Temperature	Agency Recognition
SF-2410FPA-W		200 % I_r in 5 sec.	1 A 125/250 VAC 10 A	–55 °C to +125 °C	UL
SF-2410FA-W		200 % I_r in 20 sec.	12 A 65 VDC 20 A	–55 °C to +125 °C	UL

*Meets AEC-Q200 Revision E.

Worldwide Sales Offices

Country/Region	Phone	Email
Americas:	+1-951-781-5500	americus@bourns.com
Brazil:	+55 11 5505 0601	americus@bourns.com
China:	+86 21 64821250	asiacus@bourns.com
Europe, Middle East, Africa:	+36 88 885 877	eurocus@bourns.com
Japan:	+81 49 269 3204	asiacus@bourns.com
Korea:	+82 70 4036 7730	asiacus@bourns.com
Singapore:	+65 6348 7227	asiacus@bourns.com
Taiwan:	+886 2 25624117	asiacus@bourns.com
Other Asia-Pacific Countries:	+886 2 25624117	asiacus@bourns.com

Technical Assistance Region	Phone	Email
Asia-Pacific:	+886 2 25624117	techweb@bourns.com
Europe, Middle East, Africa:	+36 88 520 390	eurotech@bourns.com
Americas:	+1-951-781-5500	techweb@bourns.com

BOURNS®

www.bourns.com

Bourns® products are available through an extensive network of manufacturer's representatives, agents and distributors. To obtain technical applications assistance, a quotation, or to place an order, contact a Bourns representative in your area.

Specifications subject to change without notice. Actual performance in specific customer applications may differ due to the influence of other variables. Customers should verify actual device performance in their specific applications.

"Bourns" is a registered trademark of Bourns, Inc. in the U.S. and other countries.
"SinglFuse" is a trademark of Bourns, Inc. in the U.S. and other countries
COPYRIGHT© 2025, BOURNS, INC. • MIMEO • 9/25 • e/SF2505