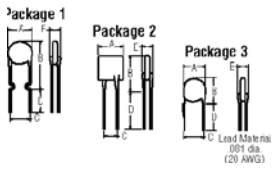
Multifuse PTC Resettable Overcurrent Protectors



Multifuse products are made from a conductive plastic formed into thin sheets with electrodes attached to either side. The conductive plastic is manufactured from a non-conductive crystalline polymer and a highly conductive carbon black. The electrodes ensure even distribution of power through the device and provide a surface for leads to be attached. The conductive carbon black filler material is dispersed in the polymer. When the polymer is at room temperature, there are numerous carbon chains forming conductive paths through the material. Under a fault condition, I^2R heating causes the plastic material's temperature to rise, resulting in a phase transformation of the polymer matrix to an amorphous stricture. This is accompanied with a small expansion. As the conductive particles move apart, most of them no longer conduct current and the resistance of the device increases sharply. The device will remain in this condition until the fault is cleared, allowing the carbon chains to reform as the polymer re-crystallizes. The resistance quickly returns to its original value. While fuses work well only once, replacement is not an option in many applications due to inconvenience, warranty cost or damaged reputations. Applications for resettable devices include computers and PDAs, motors, audio equipment, test and measurement equipment, security and fire alarms, medical, POS equipment, industrial controls, automotive and marine electronics, and battery-operated toys. **Maximum Current:** 40-100 amps. Manufacturer's literature available upon request. Kinked lead option is available for board standoff. Contact Allied for details.

Dimensions — mm

Mfr.'s Type	A Max.	B Max.	C Nom.	C Tol.	D Min.	E Max.
MF-R010	7.4	12.7	5.1	0.7	7.6	3.1
MF-R020	7.4	12.7	5.1	0.7	7.6	3.1
MF-R025	7.4	12.7	5.1	0.7	7.6	3.1
MF-R030	7.4	13.4	5.1	0.7	7.6	3.1
MF-R040	7.4	13.7	5.1	0.7	7.6	3.1
MF-R050	7.9	13.7	5.1	0.7	7.6	3.1
MF-R065	9.7	15.2	5.1	0.7	7.6	3.1
MF-R075	10.4	16.0	5.1	0.7	7.6	3.1
MF-R090	11.7	16.7	5.1	0.7	7.6	3.1
MF-R090-0-9	7.4	12.2	5.1	0.7	7.6	3.0
MF-R110	8.9	14.0	5.1	0.7	7.6	3.0
MF-R135	8.9	18.9	5.1	0.7	7.6	3.0
MF-R160	10.2	16.8	5.1	0.7	7.6	3.0
MF-R185	12.0	18.4	5.1	0.7	7.6	3.0
MF-R250	12.0	18.3	5.1	0.7	7.6	3.0
MF-R250-0-10	11.4	18.3	5.1	0.7	7.6	3.0
MF-R300	12.0	18.3	5.1	0.7	7.6	3.0
MF-R400	14.4	24.8	5.1	0.7	7.6	3.0
MF-R500	17.4	24.9	10.2	0.7	7.6	3.0
MF-R600	19.3	31.9	10.2	0.7	7.6	3.0
MF-R700	22.1	29.8	10.2	0.7	7.6	3.0
MF-R800	24.2	32.9	10.2	0.7	7.6	3.0
MF-R900	24.2	32.9	10.2	0.7	7.6	3.0
MF-RX110	13.0	18.0	5.1	0.7	7.6	3.1
MF-RX160	16.3	21.3	5.1	0.7	7.6	3.1
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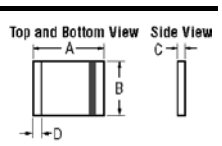
Stock No.	Mfr.'s Type	Style	Initial Resistance @ 23°C Min.	Initial Resistance @ 23°C Max.	Current Limit @ 23°C Hold	Current Limit @ 23°C Trip	Max. Volts	Lead Dia.	EACH 1-9	EACH 10-24	EACH 25-49	EACH 50-99	EACH 100-249
754-1350	MF-R010	1	2.500	4.500	0.10	0.20	60	0.51	**.40**	**.35**	**.32**	**.30**	**.28**
754-1351	MF-R017	1	2.000	3.200	0.17	0.34	60	0.51	**.69**	**.62**	**.57**	**.55**	**.49**
754-1352	MF-R020	1	1.500	2.840	0.20	0.40	60	0.51	**.43**	**.37**	**.34**	**.31**	**.29**
754-1354	MF-R025	1	1.000	1.950	0.25	0.50	60	0.51	**.36**	**.32**	**.29**	**.27**	**.25**
754-1356	MF-R030	1	0.760	1.360	0.30	0.60	60	0.51	**.60**	**.32**	**.29**	**.27**	**.25**
754-1358	MF-R040	1	0.520	0.860	0.40	0.80	60	0.51	**.38**	**.33**	**.31**	**.28**	**.26**
754-1360	MF-R050	1	0.410	0.770	0.50	1.00	60	0.51	**.48**	**.42**	**.39**	**.36**	**.33**
754-1362	MF-R065	1	0.270	0.480	0.65	1.30	60	0.51	**.47**	**.41**	**.37**	**.35**	**.32**
754-1364	MF-R075	1	0.180	0.400	0.75	1.50	60	0.51	**.51**	**.44**	**.40**	**.37**	**.35**
754-1366	MF-R090	1	0.140	0.310	0.90	1.80	60	0.51	**.47**	**.41**	**.37**	**.35**	**.32**
754-1367	MF-R090-0-9	2	0.070	0.120	0.90	1.80	30	0.51	**.47**	**.41**	**.37**	**.35**	**.32**
754-1368	MF-R110	1	0.100	0.180	1.10	2.20	30	0.51	**.45**	**.41**	**.37**	**.35**	**.32**
754-1370	MF-R135	1	0.065	0.115	1.35	2.70	30	0.51	**.80**	**.70**	**.65**	**.59**	**.55**
754-1372	MF-R160	1	0.055	0.105	1.60	3.20	30	0.51	**.49**	**.43**	**.39**	**.36**	**.34**
754-1374	MF-R185	1	0.040	0.070	1.85	3.70	30	0.51	**.49**	**.43**	**.39**	**.36**	**.34**
754-1376	MF-R250	2	0.025	0.048	2.50	5.00	30	0.81	**.47**	**.41**	**.37**	**.35**	**.32**
754-1377	MF-R250-0-10	3	0.025	0.048	2.50	5.00	30	0.51	**.55**	**.48**	**.44**	**.41**	**.38**
754-1378	MF-R300	2	0.020	0.050	3.00	6.00	30	0.81	**.96**	**.84**	**.78**	**.71**	**.64**
754-1380	MF-R400	2	0.010	0.030	4.00	8.00	30	0.81	**1.01**	**.89**	**.83**	**.77**	**.67**
754-1382	MF-R500	2	0.010	0.030	5.00	10.00	30	0.81	**1.09**	**.94**	**.88**	**.81**	**.71**
754-1384	MF-R600	2	0.005	0.020	6.00	12.00	30	0.81	**1.12**	**.97**	**.90**	**.84**	**.74**
754-1386	MF-R700	2	0.005	0.020	7.00	14.00	30	0.81	**1.15**	**.99**	**.93**	**.86**	**.76**
754-1388	MF-R800	2	0.005	0.020	8.00	16.00	30	0.81	**1.18**	**1.03**	**.94**	**.88**	**.78**
754-1389	MF-R900	2	0.005	0.010	9.00	18.00	30	0.81	**1.24**	**1.11**	**1.00**	**.94**	**.82**
754-1395	MF-RX110	3	0.150	0.250	1.10	2.20	60	0.81	**.47**	**.41**	**.37**	**.35**	**.32**
754-1397	MF-RX160	3	0.090	0.140	1.60	3.20	60	0.81	**.55**	**.48**	**.44**	**.41**	**.38**

PTC Resettable Fuses

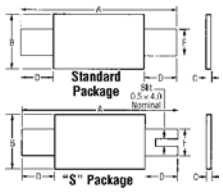


Terminal Material: Solder-plated copper. **Termination Pad Solderability:** Meets EIA specification RS-186-9E, ANSI/J-STD-002 Category 3.

Dimensions — mm

Mfr.'s Type	A Min.	A Max.	B Min.	B Max.	C Min.	C Max.	D Min.	E Min.	E Max.
MF-MSMD020-2	4.37	4.73	3.07	3.41	0.56	0.81	0.30	0.25	0.50
MF-USMD035-2	3.00	3.43	2.35	2.80	0.38	0.62	0.35	0.25	0.50
MF-MSMD050-2	4.37	4.73	3.07	3.41	0.38	0.62	0.30	0.25	0.50
MF-MSMD075-2	4.37	4.73	3.07	3.41	0.38	0.62	0.30	0.25	0.50
MF-MSMD110-2	4.37	4.73	3.07	3.41	0.38	0.62	0.30	0.25	0.50

Stock No.	Mfr.'s Type	Initial Resistance Min.	Initial Resistance Max.	Current Limit @ 23°C Hold	Current Limit @ 23°C Trip	Max Volts	EACH 1-9	EACH 10-24	EACH 25-49	EACH 50-99	EACH 100-249
754-1315	MF-MSMD020-2	0.40	5.00	0.20	0.40	30.0	**.49**	**.43**	**.39**	**.36**	**.34**
754-1316	MF-USMD035-2	0.32	1.30	0.35	0.70	6.0	**.49**	**.43**	**.39**	**.36**	**.34**
754-1317	MF-MSMD050-2	0.15	1.00	0.50	1.00	15.0	**.71**	**.46**	**.42**	**.39**	**.36**
754-1318	MF-MSMD075-2	0.11	0.45	0.75	1.50	13.2	**.53**	**.46**	**.42**	**.39**	**.36**
754-1319	MF-MSMD110-2	0.04	0.21	1.10	2.20	6.0	**.53**	**.45**	**.42**	**.39**	**.36**



Axial Lead PTC Resettable Overcurrent Protectors

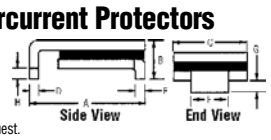
Axial leaded series of the resettable overcurrent protectors above. These products are fully compatible with current industry standards. They feature weldable nickel terminals and very low internal resistance. Excellent for use in rechargeable battery pack protection. Applications are almost anywhere there is a low voltage power supply and a load to be protected. Uses include computers and peripherals, industrial, commercial or consumer electronics, and even automotive applications. **Material:** Nickel. Manufacturer's literature available upon request.

Dimensions — mm

Mfr.'s Type	A Min.	A Max.	B Min.	B Max.	C Min.	C Max.	D Min.	D Max.	F Min.	F Max.
MF-LR190S	19.9	22.1	4.9	5.5	0.6	1.00	5.5	7.5	3.9	4.1
MF-LR380	24.0	26.0	6.9	7.5	0.6	1.00	4.1	5.5	4.9	5.1
MF-LR450	24.0	26.0	9.9	10.5	0.6	1.00	5.3	6.7	5.9	6.1
MF-LR550	35.0	37.0	6.9	7.5	0.6	1.00	5.3	6.7	4.9	5.1
MF-LR600	24.0	26.0	13.9	14.5	0.6	1.00	4.1	5.5	5.9	6.1
MF-LR730	26.0	29.1	13.9	14.5	0.6	1.00	4.1	5.5	5.9	6.1
MF-LS070	19.9	22.1	4.9	5.2	0.7	1.20	5.5	7.5	3.8	4.1
MF-LS070S	19.9	22.1	4.9	5.2	0.7	1.20	5.5	7.5	3.8	4.1
MF-LS100S	20.9	23.1	4.9	5.2	0.6	1.00	4.1	5.5	3.8	4.1
MF-LS180	24.0	26.0	4.9	5.2	0.6	1.00	4.1	5.5	3.8	4.1
MF-LS180S	24.0	26.0	4.9	5.2	0.6	1.00	4.1	5.5	3.8	4.1
MF-LS190	21.3	23.4	10.2	11.0	0.5	1.10	5.0	7.6	4.8	5.4
MF-LS190RU	19.8	20.8	13.3	14.3	0.4	0.76	8.1	9.5	3.8	4.1
MF-LS260	24.0	26.0	10.8	11.9	0.6	1.00	5.0	7.0	5.9	6.1
MF-LS300	28.4	31.8	13.0	13.5	0.5	1.10	6.3	8.9	6.0	6.6
MF-LS340	24.0	26.0	14.8	15.9	0.6	1.00	4.0	5.0	6.0	6.1
MF-VS170	15.5	17.5	7.0	7.4	0.4	0.80	4.1	5.8	3.9	4.1
MF-VS210G	20.9	23.1	4.9	5.3	0.6	1.00	4.1	5.8	3.9	4.1
MF-VS210S	20.9	23.1	4.9	5.3	0.6	1.00	4.1	5.8	3.9	4.1
MF-VS210L	20.9	23.1	4.9	5.3	0.6	1.00	4.1	5.8	3.9	4.1

Stock No.	Mfr.'s Type	Package	Initial Resistance Min.	Initial Resistance Max.	Current Limit @ 23°C Hold	Current Limit @ 23°C Trip	Max. Volts	EACH 1-9	EACH 10-24	EACH 25-49	EACH 50-99	EACH 100-249
754-1767	MF-LR190S	"S"	0.039	0.072	1.90	3.90	15	**.53**	**.46**	**.43**	**.39**	**.36**
754-1771	MF-LR380	Standard	0.013	0.026	3.80	8.30	15	**.53**	**.46**	**.43**	**.39**	**.36**
754-1773	MF-LR450	Standard	0.011	0.020	4.50	8.90	20	**.53**	**.46**	**.43**	**.39**	**.36**
754-1775	MF-LR550	Standard	0.009	0.019	5.50	10.50	20	**.57**	**.50**	**.46**	**.42**	**.39**
754-1777	MF-LR600	Standard	0.007	0.014	6.00	11.70	20	**.57**	**.50**	**.46**	**.42**	**.39**
754-1779	MF-LR730	Standard	0.006	0.012	7.30	14.10	20	**.40**	**.35**	**.32**	**.30**	**.28**
754-1761	MF-LS070	Standard	0.100	0.200	0.70	1.50	15	**.52**	**.50**	**.49**	**.48**	**.47**
754-1763	MF-LS070S	"S"	0.100	0.200	0.70	1.50	15	**.53**	**.46**	**.43**	**.39**	**.36**
754-1766	MF-LS100S	"S"	0.070	0.130	1.00	2.50	24	**.53**	**.46**	**.43**	**.39**	**.36**
754-1768	MF-LS180	Standard	0.040	0.068	1.80	3.80	24	**.53**	**.46**	**.43**	**.39**	**.36**
754-1770	MF-LS180S	"S"	0.040	0.068	1.80	3.80	24	**.53**	**.46**	**.43**	**.39**	**.36**
754-1772	MF-LS190	Standard	0.030	0.057	1.90	4.20	24	**.53**	**.46**	**.43**	**.39**	**.36**
754-1759	MF-LS190RU	Standard	0.030	0.057	1.90	4.20	15	**.53**	**.46**	**.43**	**.39**	**.36**
754-1774	MF-LS260	Standard	0.025	0.042	2.60	5.20	24	**.57**	**.50**	**.46**	**.42**	**.39**
754-1776	MF-LS300	Standard	0.015	0.031	3.00	6.30	24	**.57**	**.50**	**.46**	**.42**	**.39**
754-1778	MF-LS340	Standard	0.016	0.027	3.40	6.80	24	**.40**	**.35**	**.32**	**.30**	**.28**
754-1950	MF-VS170	Standard	0.030	0.052	1.70	3.40	16	**.57**	**.50**	**.46**	**.42**	**.39**
754-1951	MF-VS210G	Standard	0.018	0.030	2.10	4.70	16	**.57**	**.54**	**.52**	**.51**	**.50**
754-1952	MF-VS210S	"S"	0.020	0.042	2.60	5.80	15	**.57**	**.54**	**.52**	**.51**	**.50**
754-1953	MF-VS210L	Standard	0.020	0.042	2.60	5.80	15	**.57**	**.54**	**.52**	**.51**	**.50**

Surface Mount PTC Resettable Overcurrent Protectors



Surface mount series of the resettable overcurrent protectors. These products are fully compatible with current industry standards. Packaged per EIA 481-2 standard. Applications are almost anywhere there is a low voltage power supply and a load to be protected. Uses include computers and peripherals, industrial, commercial or consumer electronics, and even automotive applications. Manufacturer's literature available upon request.

Dimensions — mm

Mfr.'s Type	A Min.	A Max.	B Max.	C Max.	D Min.	D Max.	E Min.	E Max.	F Min.	F Max.	G Min.	G Max.	H Min.
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	0.20	0.30	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

Stock No.	Mfr.'s Type	Initial Resistance Min.	Initial Resistance Max.	Current Limit @ 23°C Hold	Current Limit @ 23°C Trip	Max. Volts	EACH 1-9	EACH 10-24	EACH 25-49	EACH 50-99	EACH 100-249
754-1780	MF-SM030-2	1.200	2.400	0.30	0.60	60	**.75**	**.67**	**.61**	**.56**	**.52**
754-1782	MF-SM050-2	0.350	0.700	0.50	1.00	30	**.75**	**.67**	**.61**	**.56**	**.52**
754-1784	MF-SM075-2	0.350	0.700	0.75	1.50	30	**.75**	**.67**	**.61**	**.56**	**.52**
754-1786	MF-SM100-2	0.120	0.240	1.10	2.20	15	**1.11**	**1.00**	**.91**	**.83**	**.77**
754-1788	MF-SM125-2	0.070	0.140	1.25	2.50	15	**.81**	**.73**	**.67**	**.61**	**.56**
754-1790	MF-SM150-2	0.060	0.120	1.50	3.00	15	**.86**	**.78**	**.71**	**.65**	**.60**
754-1792	MF-SM200-2	0.050	0.100	2.00	4.00	15	**1.21**	**1.09**	**.99**	**.91**	**.84**
754-1794	MF-SM250-2	0.040	0.080	2.50	5.00	15	**1.11**	**1.00**	**.91**	**.83**	**.77**
754-1796	MF-SM260-2	0.025	0.075	2.60	5.20	6	**.73**	**.65**	**.59**	**.54**	**.50**