

Surface-Mount Devices | 1206 Size PTC

Resettable Fuses

SRF1206 Series

Features

- Resettable over current and over temperature protection
- Standard 1206mils footprint
- Fast time-to-trip
- RoHS compliant

Applications

- Automotive electronics
- PC motherboards, Hard disk driver, and PC peripherals
- POS Equipment
- LCD / LED HDTV
- USB port protection
- HDMI source protection



Electrical Characteristics

Part Number	I_H (A)	I_T (A)	V_{max} (V)	I_{max} (A)	Time to Trip		Pd_{typ} (W)	R_{min} (Ω)	$R1_{max}$ (Ω)	Agency Approval UL/CSA
					(A)	(Sec)				
SRF1206P005	0.05	0.15	30	10	0.25	1.50	0.40	2.50	40.0	√
SRF1206P005/60	0.05	0.15	60	10	0.25	1.50	0.40	2.50	40.0	×
SRF1206P010	0.10	0.25	30	10	0.50	1.20	0.40	1.40	15.0	√
SRF1206P010/48	0.10	0.25	48	10	0.50	1.20	0.40	1.40	15.0	×
SRF1206P012	0.12	0.29	30	10	8.00	0.10	0.40	1.35	8.50	√
SRF1206P012/48	0.12	0.29	48	10	1.00	0.20	0.40	1.35	8.50	×
SRF1206P020	0.20	0.46	24	10	8.00	0.10	0.60	0.60	2.60	√
SRF1206P020/30	0.20	0.46	30	60	1.00	0.60	0.60	0.60	3.30	×
SRF1206P020/60	0.20	0.46	60	10	1.00	0.60	0.60	0.60	4.40	×
SRF1206P025	0.25	0.55	16	10	1.25	0.10	0.60	0.50	1.80	√
SRF1206P025/24	0.25	0.55	24	10	1.25	0.60	0.60	0.40	2.40	×
SRF1206P035	0.35	0.75	6	40	8.00	0.10	0.60	0.30	1.20	√
SRF1206P035/16	0.35	0.75	16	40	8.00	0.10	0.60	0.30	1.20	×
SRF1206P035/24	0.35	0.75	24	40	8.00	0.10	0.60	0.30	1.20	×
SRF1206P050	0.50	1.00	13.2	40	8.00	0.10	0.40	0.15	0.70	√
SRF1206P050/24	0.50	1.00	24	40	8.00	0.10	0.50	0.15	1.10	×
SRF1206P050/30	0.50	1.00	30	40	8.00	0.10	0.50	0.15	1.10	×
SRF1206P075	0.75	1.50	6	100	8.00	0.10	0.40	0.10	0.40	√
SRF1206P075/16	0.75	1.50	16	100	8.00	0.10	0.40	0.10	0.40	×

Electrical Characteristics

Part Number	I_H (A)	I_T (A)	V_{max} (V)	I_{max} (A)	Time to Trip		Pd_{typ} (W)	R_{min} (Ω)	$R1_{max}$ (Ω)	Agency Approval UL/CSA
					(A)	(Sec)				
SRF1206P100	1.00	2.00	6	100	8.00	0.10	0.60	0.07	0.28	✓
SRF1206P100/16	1.00	2.00	16	100	8.00	0.10	0.60	0.06	0.28	×
SRF1206P100/24	1.00	2.00	24	100	8.00	0.10	0.60	0.06	0.28	×
SRF1206P110	1.10	2.20	6	100	8.00	0.10	0.60	0.06	0.20	✓
SRF1206P110/16	1.10	2.20	16	100	8.00	0.10	0.60	0.06	0.28	×
SRF1206P110/24	1.10	2.20	24	100	8.00	0.10	0.60	0.06	0.28	×
SRF1206P150	1.50	3.00	6	100	8.00	0.30	0.60	0.03	0.13	✓
SRF1206P150/8	1.50	3.00	8	100	8.00	0.30	0.60	0.03	0.17	×
SRF1206P200	2.00	4.00	6	100	8.00	1.00	0.70	0.02	0.085	✓
SRF1206P200/12	2.00	4.00	12	100	8.00	1.00	0.70	0.02	0.12	×

I_H = Hold current: maximum current at which the device will not trip at 25°C still air.
 I_T = Trip current: minimum current at which the device will always trip at 25°C still air.
 V_{max} = Maximum continuous voltage device can withstand without damage at rated current.
 I_{max} = Maximum fault current device can withstand without damage at rated voltage.

T_{trip} = Maximum time to trip(s) at assigned current.
 Pd_{typ} = Typical power dissipation: typical amount of power dissipated by the device when in state air environment.
 R_{min} = Minimum resistance of device in initial (un-soldered) state.
 $R1_{max}$ = Maximum resistance of device at 25°C measured one hour after reflow.

Noted: All electrical function test is conducted after PCB mounted.

Thermal Derating Chart Hold Current (A)

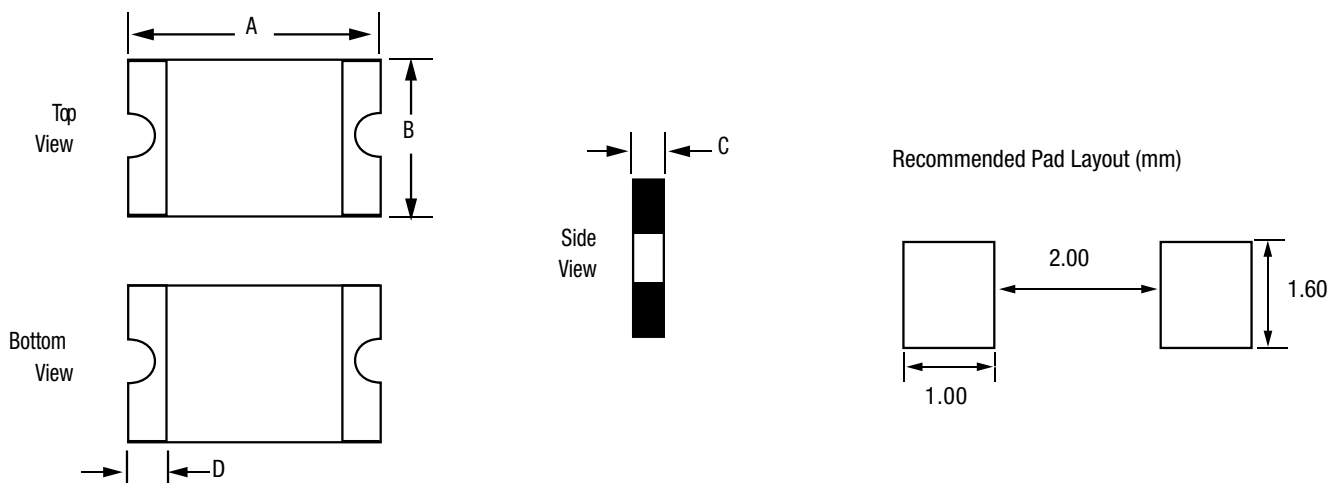
Part Number	Ambient Operating Temperature								
	-40°C	-20°C	0°C	25°C	40°C	50°C	60°C	70°C	85°C
SRF1206P005	0.08	0.07	0.06	0.05	0.05	0.04	0.04	0.03	0.03
SRF1206P005/60	0.08	0.04	0.06	0.05	0.05	0.04	0.04	0.03	0.03
SRF1206P010	0.16	0.14	0.13	0.10	0.09	0.08	0.08	0.07	0.06
SRF1206P010/48	0.16	0.14	0.13	0.10	0.09	0.08	0.08	0.07	0.06
SRF1206P012	0.19	0.17	0.15	0.12	0.11	0.10	0.09	0.08	0.07
SRF1206P012/48	0.19	0.17	0.15	0.12	0.11	0.10	0.09	0.08	0.07
SRF1206P020	0.30	0.27	0.24	0.20	0.18	0.16	0.14	0.12	0.11
SRF1206P020/30	0.30	0.27	0.24	0.20	0.18	0.16	0.14	0.12	0.11
SRF1206P020/60	0.30	0.27	0.24	0.20	0.18	0.16	0.14	0.12	0.11
SRF1206P025	0.38	0.34	0.30	0.25	0.23	0.20	0.18	0.15	0.18
SRF1206P025/24	0.38	0.34	0.30	0.25	0.23	0.20	0.18	0.15	0.14
SRF1206P035	0.51	0.46	0.40	0.35	0.30	0.27	0.24	0.22	0.18
SRF1206P035/16	0.51	0.46	0.40	0.35	0.30	0.27	0.24	0.22	0.18
SRF1206P035/24	0.51	0.46	0.40	0.35	0.30	0.27	0.24	0.22	0.18

Thermal Derating Chart Hold Current (A)

Part Number	Ambient Operating Temperature								
	-40°C	-20°C	0°C	25°C	40°C	50°C	60°C	70°C	85°C
SRF1206P050	0.76	0.68	0.59	0.50	0.44	0.40	0.35	0.32	0.26
SRF1206P050/24	0.76	0.68	0.59	0.50	0.40	0.35	0.31	0.28	0.25
SRF1206P050/30	0.76	0.68	0.59	0.50	0.40	0.35	0.31	0.28	0.25
SRF1206P075	1.11	1.00	0.85	0.75	0.67	0.61	0.52	0.50	0.42
SRF1206P075/16	1.11	1.00	0.85	0.75	0.67	0.61	0.52	0.50	0.42
SRF1206P100	1.60	1.40	1.30	1.00	0.90	0.80	0.75	0.70	0.60
SRF1206P100/16	1.60	1.40	1.30	1.00	0.90	0.80	0.75	0.70	0.60
SRF1206P100/24	1.60	1.40	1.30	1.00	0.90	0.80	0.75	0.70	0.60
SRF1206P110	1.64	1.46	1.30	1.10	0.92	0.83	0.80	0.65	0.52
SRF1206P110/16	1.64	1.46	1.30	1.10	0.92	0.83	0.80	0.65	0.52
SRF1206P110/24	1.64	1.46	1.30	1.10	0.92	0.83	0.80	0.65	0.52
SRF1206P150	2.20	1.99	1.77	1.50	1.34	1.23	1.10	1.01	0.84
SRF1206P150/8	2.20	1.99	1.77	1.50	1.34	1.23	1.10	1.01	0.84
SRF1206P200	2.88	2.61	2.28	2.00	1.80	1.66	1.51	1.39	1.19
SRF1206P200/12	2.88	2.61	2.28	2.00	1.80	1.66	1.51	1.39	1.19

Notes: The temperature derating data is for reference only. Please contact PROSEMI technical support for detail temperature derating information.

Dimensions (mm)

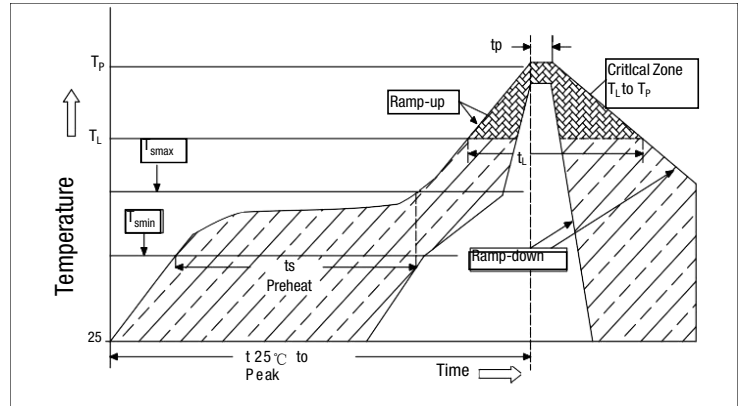


Dimensions (mm)

Part Number	Marking	A		B		C		D
		Min.	Max.	Min.	Max.	Min.	Max.	Min.
SRF1206P005	T0	3.00	3.40	1.40	1.80	0.80	1.20	0.25
SRF1206P005/60	T0	3.00	3.40	1.40	1.80	0.80	1.20	0.25
SRF1206P010	T1	3.00	3.40	1.40	1.80	0.80	1.20	0.25
SRF1206P010/48	T1	3.00	3.40	1.40	1.80	0.80	1.20	0.25
SRF1206P012	T01	3.00	3.40	1.40	1.80	0.80	1.20	0.25
SRF1206P012/48	T01	3.00	3.40	1.40	1.80	0.60	1.00	0.25
SRF1206P020	T02	3.00	3.40	1.40	1.80	0.60	1.00	0.25
SRF1206P020/30	T02	3.00	3.40	1.40	1.80	0.60	1.00	0.25
SRF1206P020/60	T02	3.00	3.40	1.40	1.80	1.00	1.50	0.25
SRF1206P025	T03	3.00	3.40	1.40	1.80	0.60	1.00	0.25
SRF1206P025/24	T03	3.00	3.40	1.40	1.80	0.60	1.00	0.25
SRF1206P035	T04	3.00	3.40	1.40	1.80	0.60	1.00	0.25
SRF1206P035/16	T04	3.00	3.40	1.40	1.80	0.60	1.00	0.25
SRF1206P035/24	T04	3.00	3.40	1.40	1.80	0.60	1.00	0.25
SRF1206P050	T05	3.00	3.40	1.40	1.80	0.55	0.75	0.25
SRF1206P050/24	T05	3.00	3.40	1.40	1.80	0.90	1.30	0.25
SRF1206P050/30	T05	3.00	3.40	1.40	1.80	0.90	1.30	0.25
SRF1206P075	T07	3.00	3.40	1.40	1.80	0.45	0.85	0.25
SRF1206P075/16	T07	3.00	3.40	1.40	1.80	0.45	0.85	0.25
SRF1206P100	T10	3.00	3.40	1.40	1.80	0.60	1.00	0.25
SRF1206P100/16	T10	3.00	3.40	1.40	1.80	0.90	1.40	0.25
SRF1206P100/24	T10	3.00	3.40	1.40	1.80	0.90	1.40	0.25
SRF1206P110	T10	3.00	3.40	1.40	1.80	0.60	1.00	0.25
SRF1206P110/16	T10	3.00	3.40	1.40	1.80	0.90	1.40	0.25
SRF1206P110/24	T10	3.00	3.40	1.40	1.80	0.90	1.40	0.25
SRF1206P150	T15	3.00	3.40	1.40	1.80	0.60	1.00	0.25
SRF1206P150/8	T15	3.00	3.40	1.40	1.80	0.60	1.00	0.25
SRF1206P200	T20	3.00	3.50	1.40	1.80	0.60	1.00	0.25
SRF1206P200/12	T20	3.00	3.50	1.40	1.80	1.10	1.60	0.25

Solder Reflow Conditions

Reflow Profile	Lead free
Heating rate from T_{smax} to T_p	Max.3°C/second
Pre-heat: T_{smin} T_{smax} T_{smin} to T_{smax}	150°C 200°C 60~180seconds
Soldering time: Temperature (T_L) Time (t_L)	>217°C 60~150seconds
Peak temperature (T_p)	260°C
Time at Peak temperature ±5°C (t_p)	20~40seconds
Cooling rate	Max.6°C/second
Time from 25°C to Peak Temperature	8 minutes max



Cautions for Reflow:

1. The printed solder thickness is not over 0.25mm, Excess solder may cause a short circuit, especially during hand soldering;
2. If reflow temperatures exceed the recommended profile, devices may not meet the performance requirements;
3. Device can not be wave soldered. Please contact Prosemi for hand soldering and dip soldering recommendations;
4. Device can't contact solvent;

Note: All temperature in top chart is measured on the surface of devices.

Packaging Options

I hold(A)	Quantity
0.05A~0.12A, 0.50A/24V, 0.50A/30V, 1.00A~2.00A	3,500pcs
0.20A~0.75A	4,000pcs
0.20A/60V, 2.00A/12V	3,000pcs

Reel packaging per EIA-481-1 standard

单击下面可查看定价，库存，交付和生命周期等信息

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