

Surface Mount Resettable PTCs

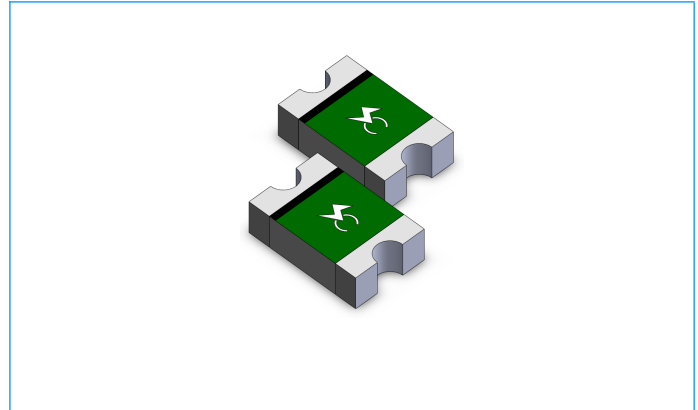
SCF0805 Series

Description

The SCF0805 Series PTC provides surface mount over-current protection for applications where space is at a premium and resettable protection is desired.

Features

- u RoHS compliant, Lead-Free and Halogen-Free
- u Fast time-to-trip
- u Compact design saves board space
- u Low resistance
- u Low-profile



Applications

- u PC motherboard - plug and play protection
- u Mobile phones - battery and port protection
- u Game console port protection
- u USB peripherals
- u Disk drive
- u PDAS / digital cameras
- u Power ports
- u General electronics

Electrical Parameters

Part Number	Hold Current	Trip Current	Rated Voltage	Max Current	Typical Power	Maximum Time To Trip		Resistance	
	I_{hold} (A)	I_{trip} (A)	V_{max} (Vdc)	I_{max} (A)	$P_{dtyp.}$ (W)	Current (A)	Time (Sec.)	R_{min} (Ω)	R_{1max} (Ω)
SCF010-0805R	0.10	0.30	15	100	0.5	0.50	1.50	0.700	6.000
SCF020-0805R	0.20	0.50	9	100	0.5	8.00	0.02	0.400	3.500
SCF035-0805R	0.35	0.75	6	100	0.5	8.00	0.10	0.250	1.200
SCF050-0805R	0.50	1.00	6	100	0.5	8.00	0.10	0.150	0.850
SCF050-9-0805R	0.50	1.00	9	100	0.5	8.00	0.10	0.150	0.850
SCF075-0805R	0.75	1.50	6	100	0.6	8.00	0.20	0.090	0.350
SCF100-0805R	1.00	1.95	6	100	0.6	8.00	0.30	0.060	0.210

I_{hold} = Hold current: maximum current device will pass without tripping in 23°C still air.

I_{trip} = Trip current: minimum current at which the device will trip in 23°C still air.

V_{max} = Maximum voltage device can withstand without damage at rated current (I_{max})

I_{max} = Maximum fault current device can withstand without damage at rated voltage (V_{max})

$P_{dtyp.}$ = Power dissipated from device when in the tripped state at 23°C still air.

R_{min} = Minimum resistance of device in initial (un-soldered) state.

R_{1max} = Maximum resistance of device at 23°C measured one hour after tripping.

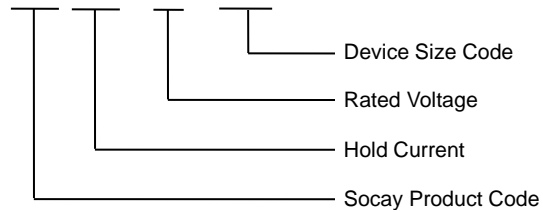
Caution: Operation beyond the specified rating may result in damage and possible arcing and flame.

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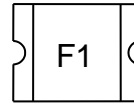
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Part Numbering

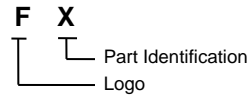
SCF XXX – XX – 0805 R



Part Marking



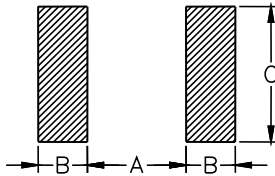
Example



F1= SCF010-0805R
F2= SCF020-0805R
F3= SCF035-0805R
F5= SCF050-0805R
FA= SCF050-9-0805R
F7= SCF075-0805R
F0= SCF100-0805R

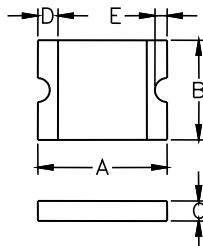
Pad Layouts Unit: mm

The dimension in the table below provide the recommended pad layout for each SCF0805 device



Device	A	B	C
	Nominal	Nominal	Nominal
0805 Series	1.20	1.00	1.50

Dimensions Unit: mm



Part Number	A		B		C		D		E	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
SCF010-0805R	2.00	2.30	1.20	1.50	0.55	1.00	0.20	0.60	0.10	0.45
SCF020-0805R	2.00	2.30	1.20	1.50	0.55	1.00	0.20	0.60	0.10	0.45
SCF035-0805R	2.00	2.30	1.20	1.50	0.45	0.75	0.20	0.60	0.10	0.45
SCF050-0805R	2.00	2.30	1.20	1.50	0.55	1.25	0.20	0.60	0.10	0.45
SCF050-9-0805R	2.00	2.30	1.20	1.50	0.55	1.25	0.20	0.60	0.10	0.45
SCF075-0805R	2.00	2.30	1.20	1.50	0.55	1.25	0.20	0.60	0.10	0.45
SCF100-0805R	2.00	2.30	1.20	1.50	0.75	1.80	0.20	0.60	0.10	0.45

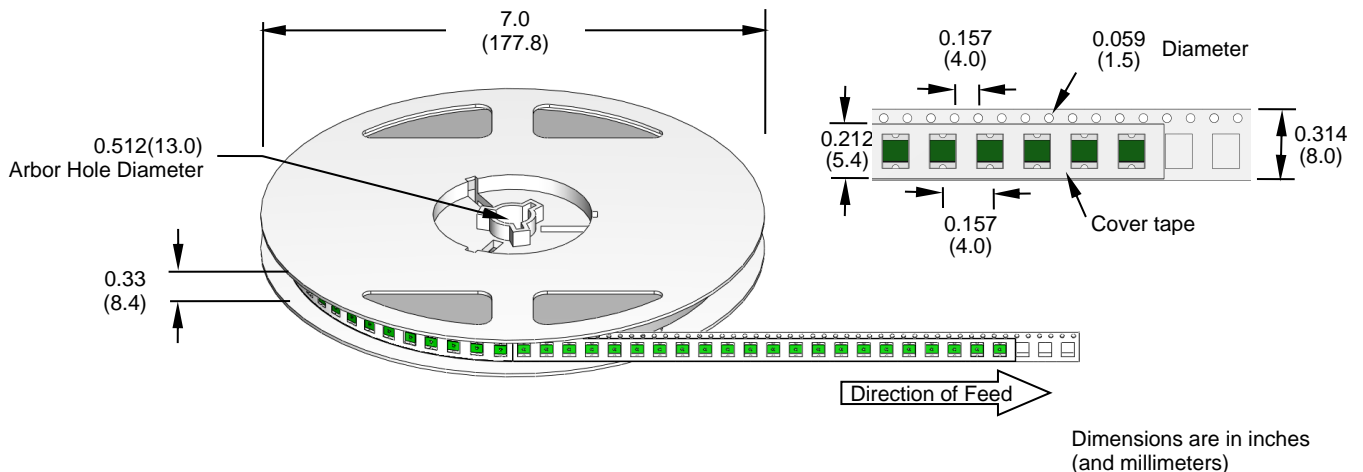
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Packaging

Part Number	Packaging Option	Quantity
SCF010-0805R	Tape & Reel -8mm/7"tape	4000
SCF020-0805R	Tape & Reel -8mm/7"tape	4000
SCF035-0805R	Tape & Reel -8mm/7"tape	4000
SCF050-0805R	Tape & Reel -8mm/7"tape	3000
SCF050-9-0805R	Tape & Reel -8mm/7"tape	3000
SCF075-0805R	Tape & Reel -8mm/7"tape	3000
SCF100-0805R	Tape & Reel -8mm/7"tape	3000

Tape and Reel Specifications



Warning



- ⊐ Operation beyond the specified maximum ratings or improper use may result in damage and possible electrical arcing and/or flame.
- ⊐ PPTC device are intended for occasional over-current protection. Application for repeated over-current condition and/or prolonged trip are not anticipated.
- ⊐ Avoid contact of PPTC device with chemical solvent. Prolonged contact will damage the device performance.