



Features

- Two resistance-matched PTCs in a plastic housing
- Narrow resistance tolerance
- RoHS compliant*

Applications

Used as a secondary overcurrent protection device in:

- Customer Premise Equipment (CPE)
- Central Office (CO)
- Access equipment

CPS Series - Telecom CPTC Resettable Fuses

Electrical Characteristics

Model	Induction Voltage Withstand	Rated Voltage	Rated Resistance (RN)		Resistance Matching in Housing	Hold Current	Trip Current	I _{max} @ 230 VAC	Typ. Time to Trip @ I _{max} / 230 VAC
	VAC		Volts	Ohms					
CPSSF7R0MP6C5	250	230	7	±20 %	≤1.0	0.080	0.200	3.0	0.45
CPSSF100MX2C5	250	230	10	±20 %	≤1.0	0.180	0.360	1.0	3.8
CPSSG100MX2C5	250	230	10	±20 %	≤1.0	0.150	0.360	1.0	3.8
CPSSF250MX2C5	250	230	25	±20 %	≤1.0	0.130	0.260	2.8	0.2
CPSSG250MX2C5	250	230	25	±20 %	≤1.0	0.130	0.260	2.8	0.3
CPSSF350MX2C5	600	230	35	±20 %	≤1.0	0.110	0.230	4.6	0.06
CPSSG350MX2C5	600	230	35	±20 %	≤1.0	0.110	0.230	2.5	0.2
CPSSF500MX2C5	600	230	50	±15 %	≤1.0	0.090	0.190	2.5	0.13
CPSSG500MX2C5	600	230	50	±15 %	≤1.0	0.090	0.190	2.5	0.2
CPSSF750MX2C5	600	230	75	±20 %	≤2.0	0.070	0.150	2.5	0.12

Operating Temperature Range: -40 °C to +125 °C.

Test Procedures And Requirements For Model CPS Series

Test	Primary Protection	Test Condition	Requirements
Mains Power Contact - ITU-T K.20, K.21	None	230 V rms, 10 ohms, 15 Min.	(Ri-Rf) / Ri < ±10 %
Power Induction - ITU-T K.20, K.21	None	600V rms, 600 ohms, 0.2 seconds, 10 cycles, every 1 Min.	(Ri-Rf) / Ri < ±10 %
Power Induction - ITU-T K.20, K.21	GDT	600 V rms, 600 ohms, 1 second, 10 cycles, every 1 Min.	(Ri-Rf) / Ri < ±10 %
Power Induction - ITU-T K.20, K.21	GDT	600 V rms, 200 ohms, 1 second, 10 cycles, every 1 Min.	(Ri-Rf) / Ri < ±10 %
Lightning Surge - ITU-T K.20, K.21		10/700 μs, 25 ohms, 1.0 kV, 10 Tests, every 1 Min.	(Ri-Rf) / Ri < ±10 %
Lightning Surge		10/1000 μs, 60 ohms, 1.5 kV, 30 Tests, every 3 Min.	(Ri-Rf) / Ri < ±10 %

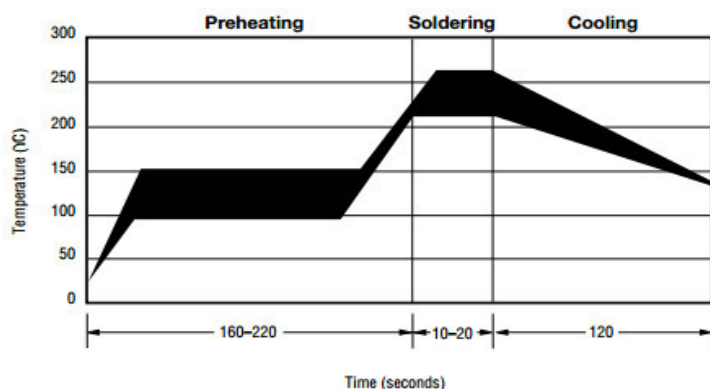
Ri = R initial; Rf = R final

Moisture Sensitivity Level (MSL) Level 1

ESD Classification - HBM Class 6

CPS Series - Telecom CPTC Resettable Fuses

Solder Reflow Recommendations



Solder reflow

- Recommended reflow methods: IR, vapor phase oven, hot air oven.
- Devices are not designed to be wave soldered to the bottom side of the board.
- Gluing the devices is not recommended.
- Recommended maximum paste thickness is 0.25 mm (.010 inch).
- Devices can be cleaned using standard industry methods and solvents.

Note:

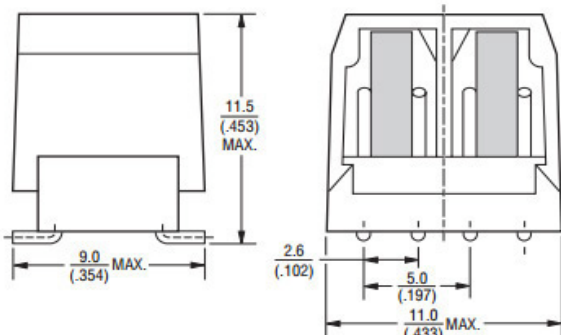
- If reflow temperatures exceed the recommended profile, devices may not meet the performance requirements.

Rework

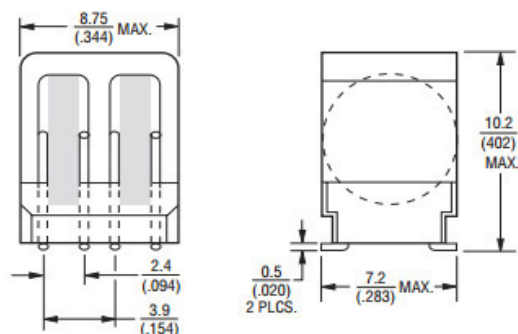
- A device should not be reworked.

Product Dimensions

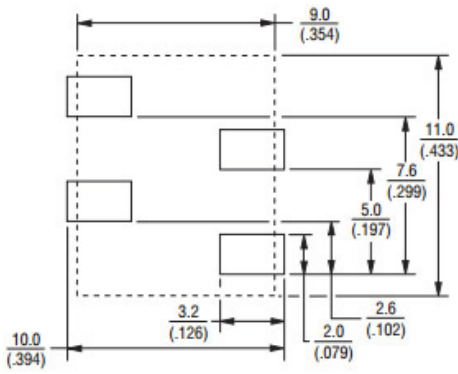
CPS 05, 07, 10, 25, 35, 50 & 75



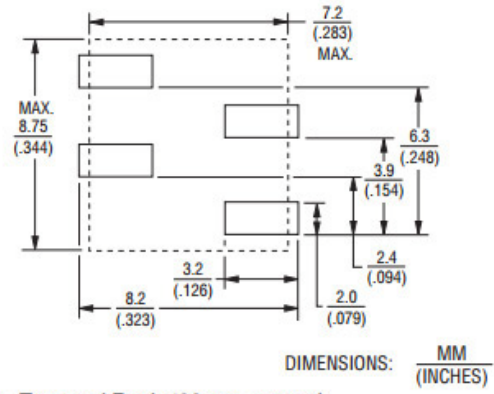
CPS10A, 25A, 35A, 50A & 75A



Recommended Pad Layout



Packaging - Tape and Reel: 350 pcs. per reel



Packaging - Tape and Reel: 400 pcs. per reel

CPS Series Tape and Reel Specifications

Tape Dimensions per EIA 481-2

CPSSF100MX2C5, CPSSF250MX2C5
CPSSF350MX2C5, CPSSF500MX2C5
CPSSF750MX2C5

CPSSG100MX2C5, CPSSG250MX2C5
CPSSG350MX2C5, CPSSG500MX2C5

W	$\frac{24.0 \pm 0.5}{(0.945 \pm 0.020)}$	$\frac{24.0 \pm 0.5}{(0.945 \pm 0.020)}$
P ₀	$\frac{4.0}{(0.157)}$	$\frac{4.0}{(0.157)}$
P	$\frac{16.0}{(0.630)}$	$\frac{16.0}{(0.630)}$
P ₂	$\frac{2.0}{(0.079)}$	$\frac{2.0}{(0.079)}$
A ₀	$\frac{9.2 \pm 0.2}{(0.362 \pm 0.008)}$	$\frac{7.5 \pm 0.2}{(0.295 \pm 0.008)}$
B ₀	$\frac{11.0 \pm 0.2}{(0.441 \pm 0.008)}$	$\frac{9.0 \pm 0.2}{(0.354 \pm 0.008)}$
D	$\frac{1.5}{(0.059)}$	$\frac{1.5}{(0.059)}$
F	$\frac{11.5}{(0.453)}$	$\frac{11.5}{(0.453)}$
E	$\frac{1.75}{(0.069)}$	$\frac{1.75}{(0.069)}$
t	$\frac{0.5 \pm 0.15}{(0.020 \pm 0.006)}$	$\frac{0.5 \pm 0.15}{(0.020 \pm 0.006)}$
K ₀	$\frac{11.5 \pm 0.2}{(0.453 \pm 0.008)}$	$\frac{10.0 \pm 0.2}{(0.394 \pm 0.008)}$

