# **Bussmann**®

# Printed Circuit Board Fuses PC-Tron<sup>®</sup> Subminiature Fuses

PC-Tron<sup>®</sup> Series



CATALOG SYMBOL: PCB, PCC, PCF, PCH, PCD, PCE, PCG & PCI PC-TRON SUBMINIATURE FUSES

#### **Electrical Ratings**

Catalog			AC		DC
Symbol	Amps	VAC	Interrupting	VDC	Interrupting
PCB, PCC,	0.5 - 2.5	250	50A at 250V	450	300 - 5900A
PCF & PCH			10kA at 125V		
PCB, PCC,	2.6 - 3.0	250	50A at 250V	350	300 - 4400A
PCF & PCH			10kA at 125V		
PCD, PCE,	5.0	125	10kA at 125V	250	300 - 4200A
PCG & PCI					

## **Time-Current Characteristics**

Carry 100% of rating for 4 hrs. minimum. Open at 200% of rating in 10 sec. maximum.

(Non-Time-Delay. . .extremely low let-through)

### Agency Approvals

PCB, PCC, PCD, PDE, PCF, PCG, PCH, and PCI — U.L. Recognized; File E19180, Guide JDYX2.

PCB, PCC, PCD, PCF, PCG, PCH, PCI, and PDE — CSA Certified; File 42731, Class 1421-01.

## **Dimensions and Material**

Body: 0.350" x 0.350" x 0.184"; High temperature plastic. Leads: 0.020" x 0.015" x 0.100" (short) 0.750" (full)

(tape & reel) (Tin-plated copper).

# Mounting Socket

Available as option. (Specify catalog number BK/PCS (100-in) and short fuse lead length — PCC or PCE)

#### Cold Resistance Data (10% Rated Current) Nominal Value

$1/2A - 1.4\Omega$	$3/4A72\Omega$	$1A43\Omega$	$1-1/2A24\Omega$		
$2A15\Omega$	$2-1/2A10\Omega$	$3A072\Omega$	$5A023\Omega$		

Dimensional Data: All tolerances  $\frac{\pm .005''}{1.12}$ 

± .13 mm

Socket

Standard Fuse (PCB, PCD)

Socket (PCS)



### Packaging & Ordering Information:

Standard Fuse

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	PC		BK/	PCS	
Packaging Code	Catalog Symbol	Ampere Rating	Packaging Code	Catalog Symbol	
Blank—Std.	B - Full lead legth.	(1/2, 3/4,	Bulk Pack		
Pack (5-in)	(250V) (1/2-3A)	1, 1-1/2,	(100-in)		
BK/ Bulk	C - Short lead legth.	2, 2-1/2,	•		
(100-in)	(250V) (1/2-3A)	3, and 5)			
TR/ Tape	D - Full lead legth.	(5A avail-			
& Reel	(125V) (5A)	able only			
(500-in)	E - Short lead legth.* (125V) (5A)	as PCD, PCE or PCG)			

\*Note—Short lead length not available in tape-and-reel packaging. Note—Hi-Rel solderability applications should specify solder-dipped leads by adding -SD suffix to part number.

The radial lead package of the PC-Tron<sup>®</sup> is ideal for auto insertion using standard industry equipment. The 0.2" lead spacing aids ease of design. Standard wave soldering techniques will not affect the electrical performance of this unique fuse. Due to its molded construction, the device is unaffected by the board washing process. These features greatly reduce the product installation cost while increasing reliability.

The PC-Tron<sup>®</sup> is available in a wide variety of options offering flexibility to the design engineer. Available in standard pack (5-in), bulk (100-in), and tape and reel. In addition, the PC-Tron<sup>®</sup> may be ordered with short (approximately 0.10") or long (0.75") lead length. The tape and reel comes standard at 0.75".

The short lead length may be used with the optional socket. The auto insertable socket allows field replacement of the PC-Tron<sup>®</sup> subminiature fuse.

C€ CE logo denotes compliance with European Union Low Voltage Directive (50-1000 VAC, 75-1500 VDC). Refer to BIF document #8002 or contact Bussmann Application Engineering at 314-527-1270 for more information.



Form No. PC-Tron Series Page 1 of 2 BIF Doc #2034

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3A

## Packaging & Ordering Information: Standard Fuse

	PC
Packaging	Catalog
Code	Symbo
Std. — (5-in)	H - 1/2
BK/ Bulk	I - 5A



# Dimensional Data (PCF, PCG)



### Packaging & Ordering Information:

### Fuse with 0.4" Lead Spacing (contact factory for availability)

	PC	
Packaging	Catalog	Ampere
Code	Symbol	Rating
Std. — (5-in)	<b>F</b> - 1/2 — 3A	(1/2, 3/4, 1, 1-1/2,
BK/ Bulk	<b>G</b> - 5A	2, 2-1/2, 3, and 5)
		(5A available only as PCG)

### Max. Total Clearing I<sup>2</sup>t (Amps<sup>2</sup> Sec.)

Amp	125 Volts		250 Volts	
Rating	50A	1,000A	10,000A	35A & 50A
1/2A	0.006	0.006	0.006	0.006
3/4A	0.016	0.016	0.016	0.016
1A	0.020	0.020	0.020	0.020
1-1/2A	0.090	0.090	0.090	0.090
2A	0.200	0.200	0.200	0.200
2-1/2A	0.300	0.300	0.300	0.300
3A	0.750	0.750	0.750	0.750
5A	5.0	5.0	5.0	_

Note—Power Factor > .90.

### **Short-Circuit Performance**

The PC-Tron<sup>®</sup> subminiature fuse offers short-circuit performance which until now could only be found in much larger size glass tube fuses. At 250 VAC, the 1/2 to 3 amp PC-Tron can safely interrupt 50 amperes; at 125 VAC the 1/2 to 5 amp versions can interrupt 10,000 amperes. This high interrupting capacity makes the PC-Tron subminiature fuse ideal for lineside protection of power supplies.

### **DC** Application

The PC-Tron<sup>®</sup> subminiature fuse is UL recognized for DC supplementary overcurrent protection to provide individual protection for components or internal circuits in equipment.

The test method detailed below was chosen to emulate DC Bus application. Suitability for a specific application is dependent on time constants and capacitance values. It is the responsibility of the customer to evaluate the information provided for applicability to their particular application.

### **Time-Current Characteristic Curves-Average Melt**



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