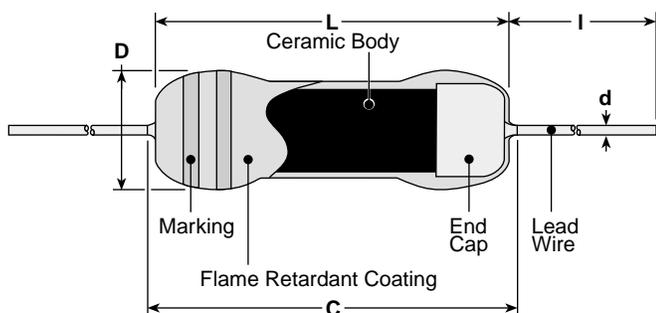


### features

- Coated with UL94V0 flameproof material
- Suitable for automatic machine insertion
- Able to replace carbon composition resistors in most applications
- Marking: Light green body color with color-coded bands
- Products with lead-free terminations meet RoHS requirements

### dimensions and construction



Type	Dimensions inches (mm)				
	L	C (max.)	D	d (nom.)	I
PCF1/2	.354±.039 (9.0±1.0)	.437 (11.1)	.138±.02 (3.5±0.5)	.028 (0.7)	1.18±.118 (30.0±3.0)
PCF1	0.65±.039 (16.5±1.0)	.748 (19.0)	.217±.039 (5.5±1.0)	.031 (0.8)	1.50±.118 (38.0±3.0)
PCF2	.748±.039 (19.0±1.0)	.886 (22.5)	.276±.039 (7.0±1.0)		

### ordering information

New Part #	<b>PCF</b>	<b>1/2</b>	<b>C</b>	<b>T631</b>	<b>R</b>	<b>102</b>	<b>K</b>
	Type	Power Rating	Termination Material	Taping	Packaging	Nominal Resistance	Tolerance
		1/2 1 2	C: SnCu (Other termination styles available, contact factory for options)	T631 T52	R: Reel	2 significant figures + 1 multiplier	K: ±10% M: ±20%

For further information on packaging, please refer to Appendix C.

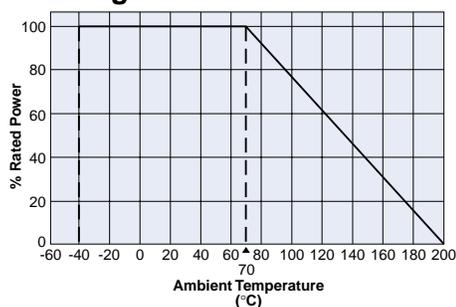
### applications and ratings

Part Designation	Power Rating @ 70°C	Minimum Dielectric Withstanding Voltage	Resistance Range E-12	Resistance Tolerance	Absolute Maximum Working Voltage	Absolute Maximum Overload Voltage	Absolute Maximum Pulse Voltage*	Operating Temperature Range
PCF1/2	0.5W	500V	4.7Ω - 100KΩ	K: ±10% M: ±20%	200V	400V	10kV	-40°C to +200°C
PCF1	1.0W				300V	600V	14kV	
PCF2	2.0W	700V	3.3Ω - 390KΩ		400V	800V	20kV	

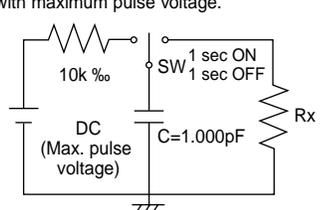
\* Resistance to pulse: change shall be ±5% of the pre-test values. 1 sec. ON, 1 second OFF, 20,000 cycles. The voltage is applied with maximum pulse voltage.

## environmental applications

## Derating Curve



## Performance Characteristics

Parameter	Requirement		Test Method	
	Limit	Typical		
Resistance	Within regulated to tolerance	—	Resistance	Measurement voltage
			3.3Ω-8.2Ω	0.3V
			10Ω-82Ω	1.0V
			100Ω-390kΩ	3.0V
T.C.R	-1200±300ppm/°C	—	+25°C/-40°C and +25°C/+125°C	
Voltage Coefficient (Apply for over 1kΩ)	0~-0.2%/V	—	Rated voltage and rated voltage x 10%	
Overload	2	0.4	Rated voltage x 2.5 or maximum overload voltage for 5s, whichever less	
Resistance to pulse	5	—	<p>The resistor mounted to the test circuit as below.            1 sec. ON and 1 sec. OFF. 20,000 cycles.            The voltage is applied with maximum pulse voltage.</p> 	
Resistance to soldering heat	2	0.8	350°C±10°C, 3.5s±0.5s	
Rapid change of temperature	2	0.4	-40°C(30min.)/+85°C(30min.), 5 cycles	
Moisture resistance	5	0.6	40°C±2°C, 90%~95%RH, 1000h, 1.5h ON/0, 5h OFF cycles	
Load life	5	0.4	70°C±3°C, 1000h, 1.5h ON/0, 5h OFF cycles	
Low temperature operation	5	—	-40°C±3°C, 24h	