

# Type 0657P

## Quick Acting Fuse Series

HF  0657P Series, 5x15mm Glass Tube Quick Acting Fuse

RoHS 2 Compliant

### Description

5x15mm Quick Acting, glass tube body cartridge fuse designed, approved and complied with UL and CSA standard 248-14.

### Features

- Meet UL and CSA standard 248-14
- Wide operating temperature range
- Bulk and Tape & Reel packing available
- RoHS 2 compliant
- Halogen Free
- Lead Free

### Applications

Provide individual protection for components or internal circuits.

- Power supplies
- Battery charger
- Monitor
- Adapter

LEAD FREE =   
HALOGEN FREE = 



### Physical Specifications

Materials	Body : Glass
	Cap : Nickel Plated Brass Caps
	Leads : Matte Tin Plated Copper
Marking	On Fuse :
	"bel", "0657P", "Current Rating", "Voltage Rating",
	"Appropriate Safety Logos",
	On Label :
	"bel", "0657P", "Current Rating", "Voltage Rating", "Interrupting Rating", "Appropriate Safety Logos" and "  ", "  "(China RoHS compliant).

### Electrical Characteristics (UL/CSA STD.248-14)

Testing Current	Blow Time	
	Minimum	Maximum
100%	4 hrs.	N/A
135%	N/A	1 hr.
200%	N/A	1 sec


### Safety Agency Approvals

Safety Agency	Safety Agency Certificate	Voltage Rating (V)	Ampere Range / Volt @ I.R. ability*
	E20624	2A-5A/350V AC	2A-5A/350V AC@100A /140V DC@150A
*I.R.= Interrupting Rating = Short Circuit Rating(Amps)			

## Environmental Specifications

Shock Resistance	MIL-STD-202G, Method 213B, Test Condition 1 (100 G's peak for 6 milliseconds; Sawtooth waveform)
Vibration Resistance	MIL-STD-202G, Method 201A (10-55 Hz, 0.06 inch, total excursion).
Salt Spray Resistance	MIL-STD-202G, Method 101E, Test Condition B (48 hrs.).
Insulation Resistance	MIL-STD-202G, Method 302, Test Condition A (After Opening) 10,000 ohms minimum.
Solderability	MIL-STD-202G, Method 208H
Resistance to solder Heat	MIL-STD-202G, Method 210F, Test Condition B (260+/-5°C, 10+/-1 sec)
Thermal Shock	MIL-STD-202G, Method 107G, Test Condition B (-65°C to +125°C).
Operating Temperature	-55°C to +125°C
Terminal Strength	IEC-68-2-21

## Electrical Specifications

Part Number	Ampere Rating	Typical Cold Resistance (ohms)	Volt-drop @100%In (Volt) max.	Voltage and Interrupting Ratings	Melting I²T <10 mSec (A² Sec)	Melting I²T @10 In (A² Sec)	Maximum Power Dissipation (W)	Agency Approvals
								
0657P2000-XX	2A	0.041	0.140	See Table of Safety Approvals on Page 1 for Voltage and associated Interrupting Ratings	3.6	4.0	0.26	Y
0657P3000-XX	3A	0.027	0.135		9.2	9.0	0.38	Y
0657P4000-XX	4A	0.019	0.128		16.0	15.0	0.48	Y
0657P5000-XX	5A	0.015	0.122		27.2	25.0	0.64	Y

Consult manufacturer for other ratings

XX - Packaging code (see "ordering information")

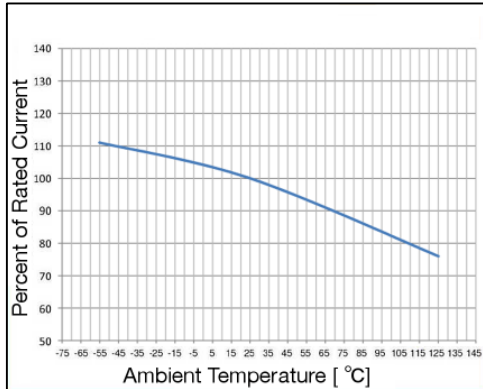


Specifications subject to change without notice

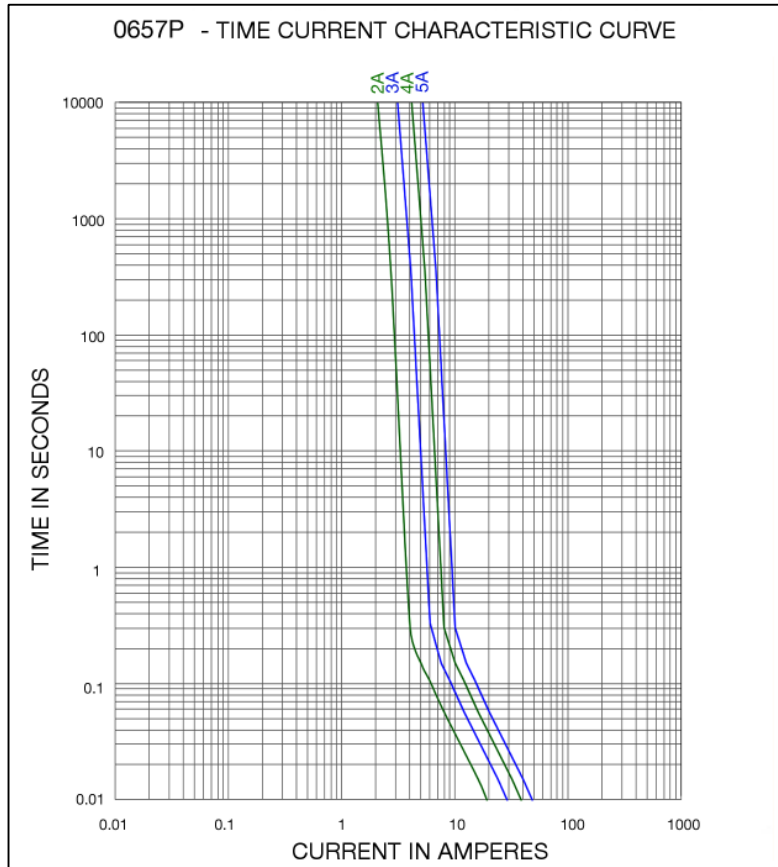
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## Temperature Derating Curve

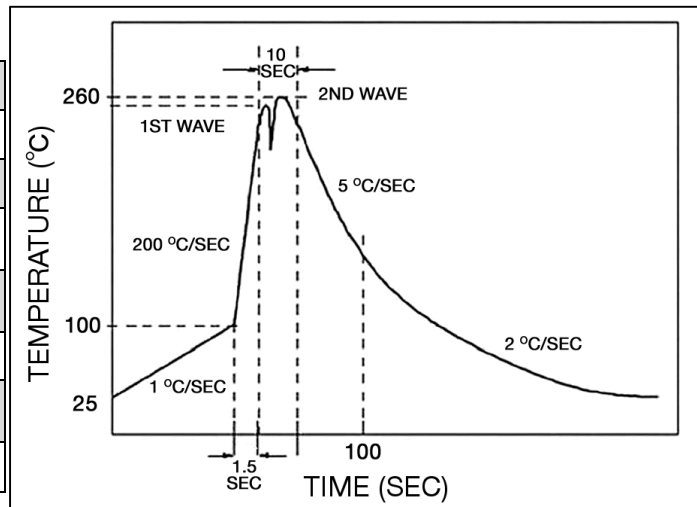


## Average Time Current Curve



## Soldering Parameters

Lead-free Wave Soldering Profile	
Wave Soldering Parameter	
Average ramp-up rate	200°C / second
Heating rate during preheat	typical 1 - 2°C / second Max 4°C / second
Final preheat temperature	within 125°C of soldering temperature
Peak temperature Tp	260°C
Time within +0°C / -5°C of actual peak temperature	10 seconds
Ramp-down rate	5°C / second max.



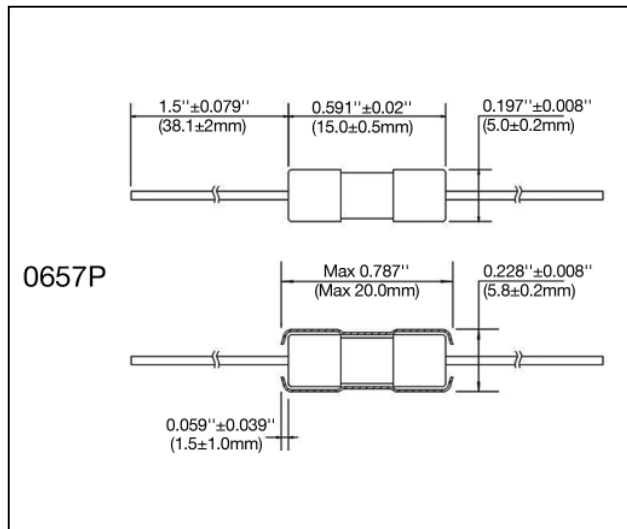
## Fuse FGNO Explanation

0657 P [XXXX] -XX

0657P=0657P; [XXXX]=Ampere Rating; XX=See Ordering Information as below

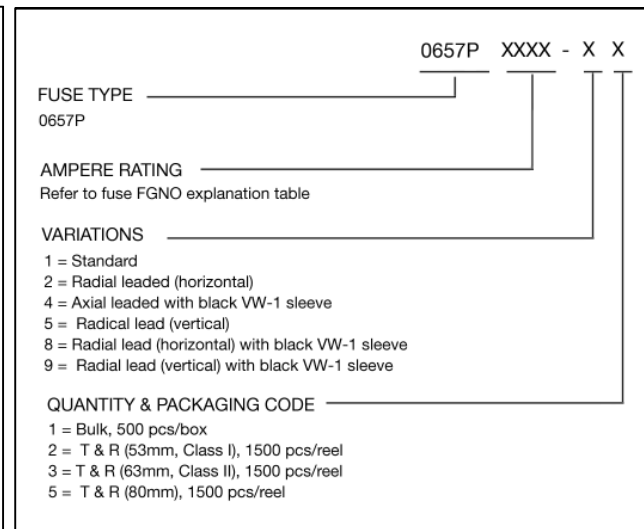
Decimal	Amps	Bel FGNO[XXXX]
2.0	2	2000
3.0	3	3000
4.0	4	4000
5.0	5	5000

## Mechanical Dimensions



\*Diameter lead 0.032" for all ratings

## Ordering Information



## Packaging

Packaging Option	Packaging Specification	Quantity	Packaging Code	Inside Tape Spacing
Bulk (Pigtail Type)	N/A	500	11	N/A
Bulk (Pigtail Type) with Insulation Sleeve	N/A	500	41	N/A
Tape & Reel, 10mm Pitch	EIA-296-F	1500	12	53
Tape & Reel with Insulation Sleeve, 10mm Pitch	EIA-296-F	1500	42	53