

# Circuit protection elements

## ●Circuit protection elements

Rohm's circuit protectors have a very reliable current cut-off capability that protects ICs and their circuits from accidental short circuit loads. Whether operated in AC or DC circuits, these circuit protectors have a very low internal resistance in normal operation, but safely and rapidly break the circuit when the current cutoff level is exceeded.

## ●Features

- 1) Sharp and stable cutoff characteristics.
- 2) Low internal resistance and minimal voltage drop.
- 3) Incombustible.
- 4) Compact.
- 5) Rated for continuous use.
- 6) Good temperature characteristics.
- 7) Withstands surges well.
- 8) UL certified (UL certification number E107856).

## ●Application

Current surge protection

## ●Operation notes

Do not use this product on the primary side of commercial power supplies. Arcs that result after cutoff may damage the molding.

Use caution when electric current exceeds the rated level.

Ensure that the voltage between terminals is below 50V during interruptions / cutoffs.

## Surface mounting Type

### ●ICP-S series

Product name	Rated current (A)	Cutoff characteristics	Internal resistance Typ.(Ω)	Rated voltage (V)	Operating temperature (°C)	Storage temperature (°C)
ICP-S0.5	0.5	Fig.1	0.150	50	-55 to +125	-55 to +125
ICP-S0.7	0.7	Fig.2	0.084			
ICP-S1.0	1.0	Fig.3	0.061			
ICP-S1.2	1.2	Fig.4	0.048			

Overcurrent Protection Elements

●Cutoff characteristics

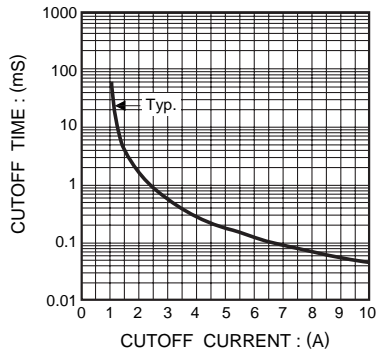


Fig.1 ICP-S0.5

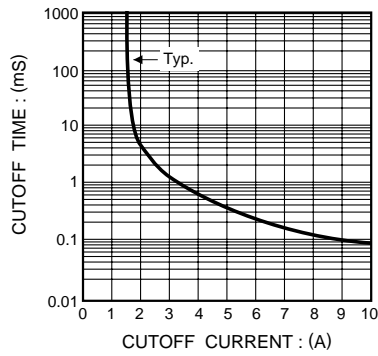


Fig.2 ICP-S0.7

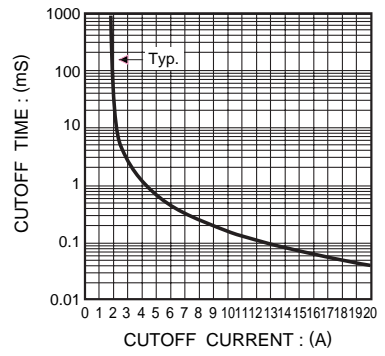


Fig.3 ICP-S1.0

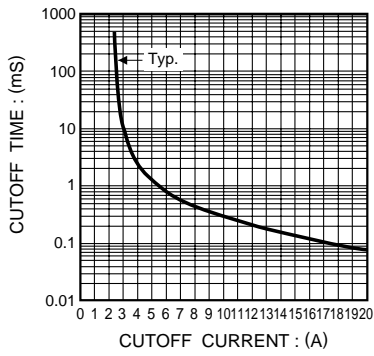
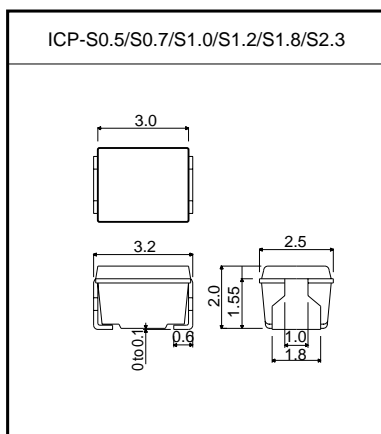


Fig.4 ICP-S1.2

The cutoff characteristics shown are typical. For further details of how to use these protectors, please request the technical documentation from your Rohm representative.

●Dimensions (Unit : mm)

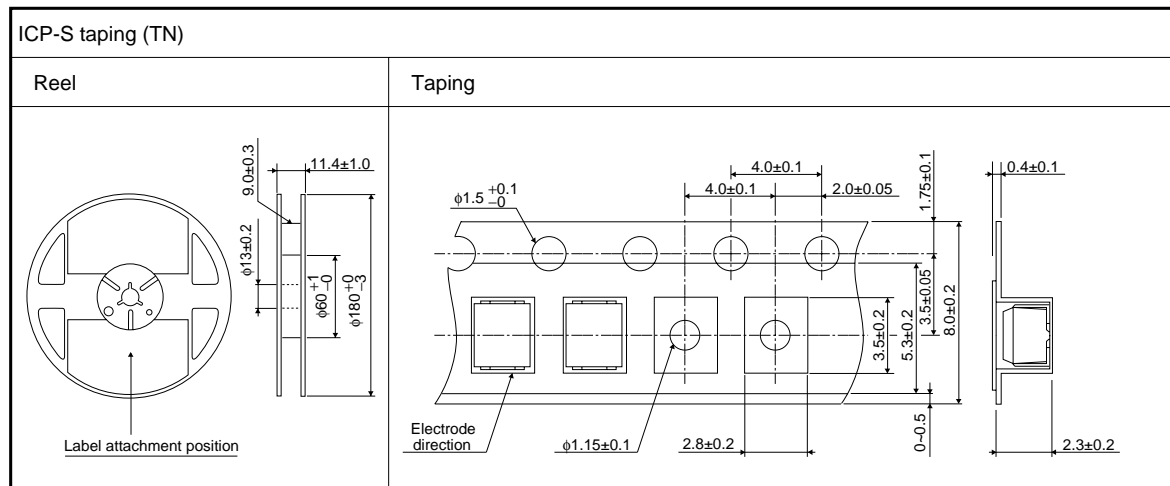


Overcurrent Protection Elements

●Packaging specifications

ICP-S Type	Package type	Taping
	Symbol	TN
	Basic ordering unit (pieces)	2000
ICP-S0.5		○
ICP-S0.7		○
ICP-S1.0		○
ICP-S1.2		○

●Taping specifications (Unit : mm)



Overcurrent Protection Elements

# Leaded type

ICP-N series

Product name	Rated current (A)	Cutoff characteristics	Internal resistance Typ.( $\Omega$ )	Rated voltage (V)	Operating temperature ( $^{\circ}\text{C}$ )	Storage temperature( $^{\circ}\text{C}$ )
ICP-N20	0.8	Fig.1	0.100	50	-55 to +125	-55 to +125
ICP-N25	1.0	Fig.2	0.070			
ICP-N38	1.5	Fig.3	0.042			
ICP-N50	2.0	Fig.4	0.035			
ICP-N70	2.5	Fig.5	0.023			

●Cutoff characteristics

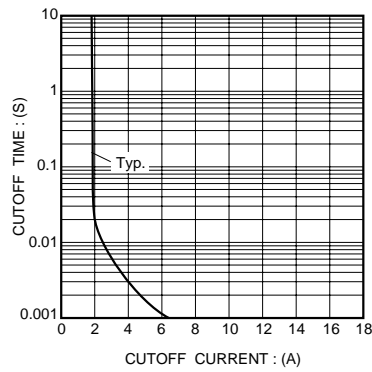


Fig.1 ICP-N20

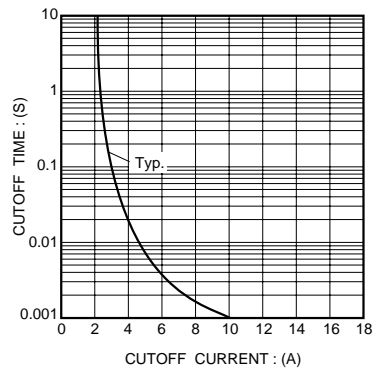


Fig.2 ICP-N25

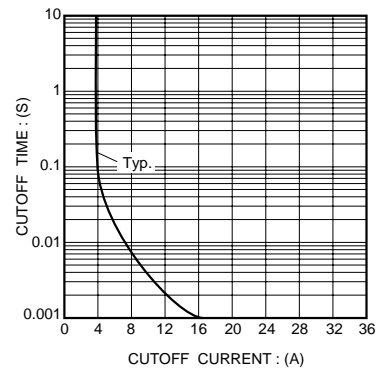


Fig.3 ICP-N38

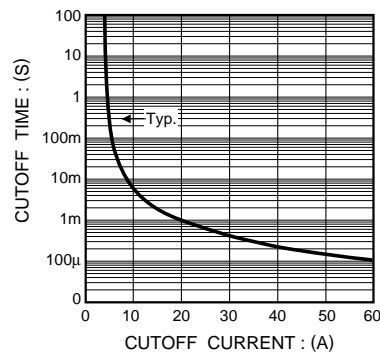


Fig.4 ICP-N50

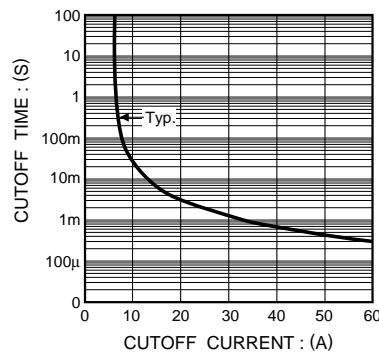
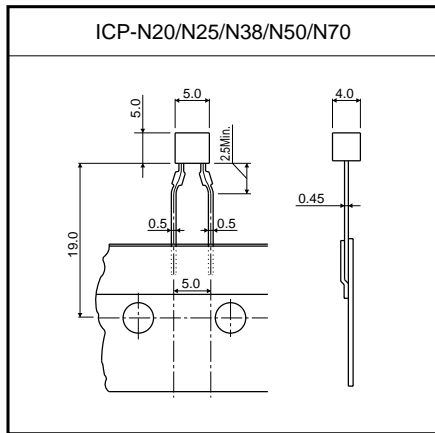


Fig.5 ICP-N70

The cutoff characteristics given represent typical values. Technical documentation regarding ways of using circuit protectors is available from your Rohm representative.

Overcurrent Protection Elements

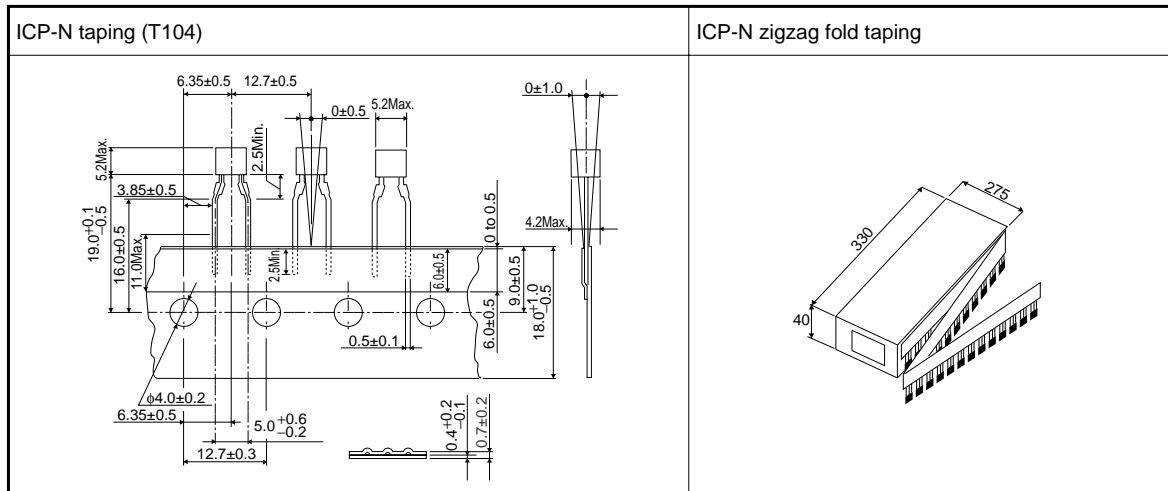
●Dimensions (Unit : mm)



●Packaging specifications

ICP-N	Packaging type	Taping
	Symbol	T104
	Basic ordering unit (pieces)	3000
Type	ICP-N20/N25/N38/N50/N70	○

●Taping specifications (Unit : mm)



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