

# 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) Cutoff is sharp and repeatable.
- 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).

## ●Applications

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.

# 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~+125	-55~+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			
ICP-S1.8	1.8	Fig.5	0.032			
ICP-S2.3	2.3	Fig.6	0.026			

## ●Cutoff characteristics

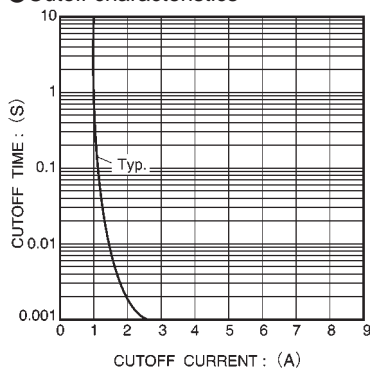


Fig.1 ICP-S0.5

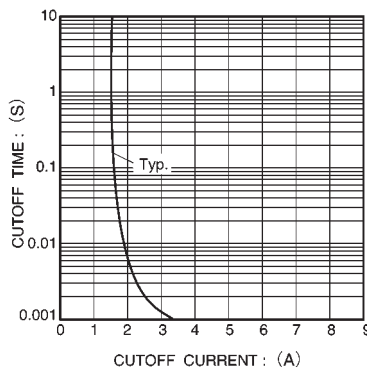


Fig.2 ICP-S0.7

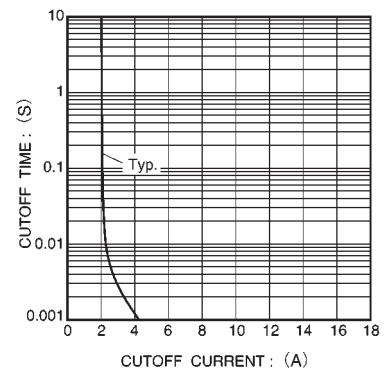


Fig.3 ICP-S1.0

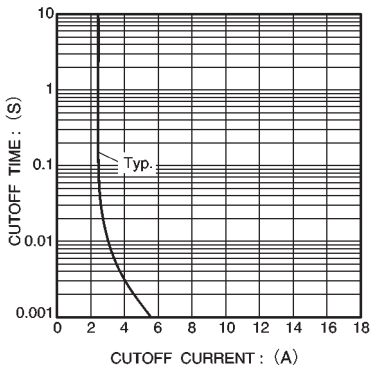


Fig.4 ICP-S1.2

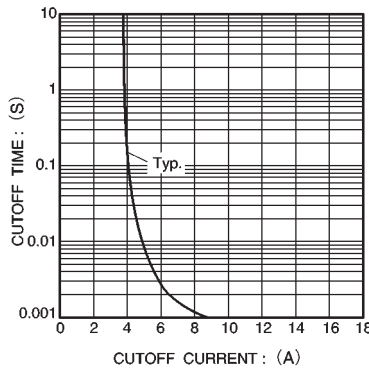


Fig.5 ICP-S1.8

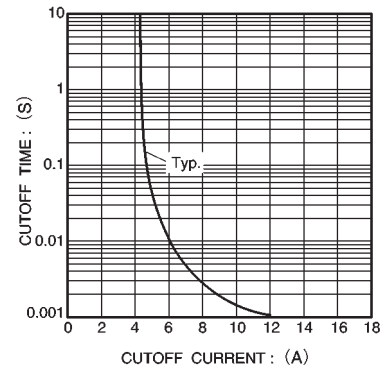
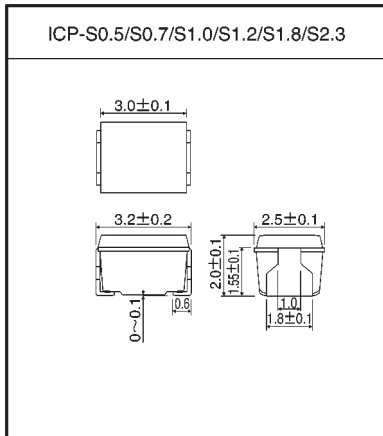


Fig.6 ICP-S2.3

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

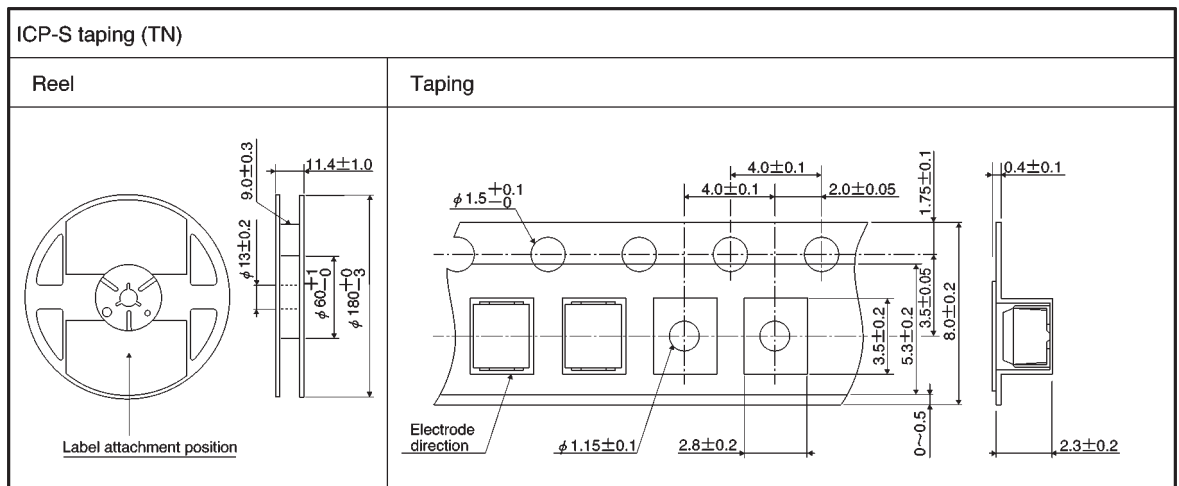
●External dimensions (Units: mm)



●Packaging specifications

ICP-S	Package type	Taping
	Symbol	TN
Part No.	Basic ordering unit (pieces)	2000
ICP-S0.5		○
ICP-S0.7		○
ICP-S1.0		○
ICP-S1.2		○
ICP-S1.8		○
ICP-S2.3		○

●Taping specifications (Units: mm)



Leaded type

ICP-N and ICP-F 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-N10, ICP-F10	0.4	Fig.1	0.220	50	-55~+125	-55~+125
ICP-N15, ICP-F15	0.6	Fig.2	0.135			
ICP-N20, ICP-F20	0.8	Fig.3	0.100			
ICP-N25, ICP-F25	1.0	Fig.4	0.070			
ICP-N38, ICP-F38	1.5	Fig.5	0.042			
ICP-N50, ICP-F50	2.0	Fig.6	0.035			
ICP-N70, ICP-F70	2.5	Fig.7	0.023			

●Cutoff characteristics

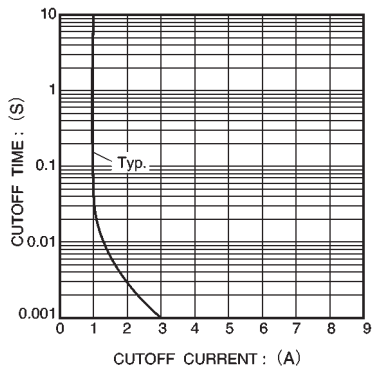


Fig.1 ICP-N10, ICP-F10

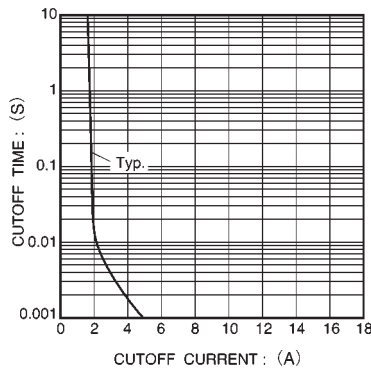


Fig.2 ICP-N15, ICP-F15

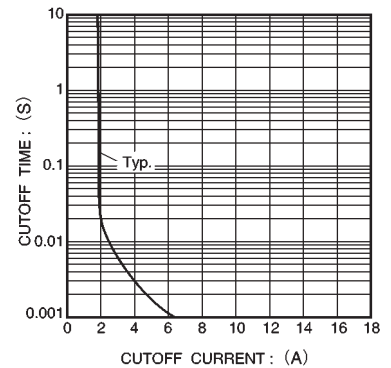


Fig.3 ICP-N20, ICP-F20

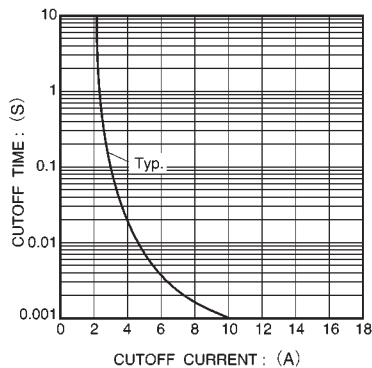


Fig.4 ICP-N25, ICP-F25

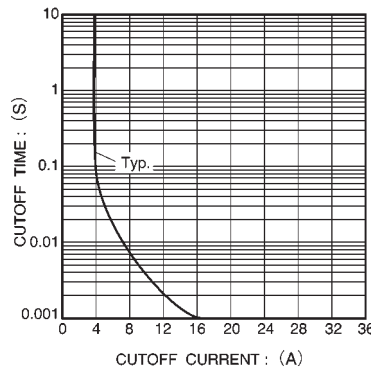


Fig.5 ICP-N38, ICP-F38

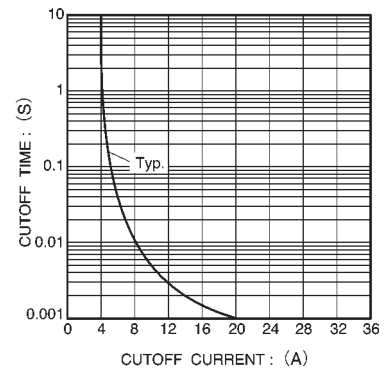


Fig.6 ICP-N50, ICP-F50

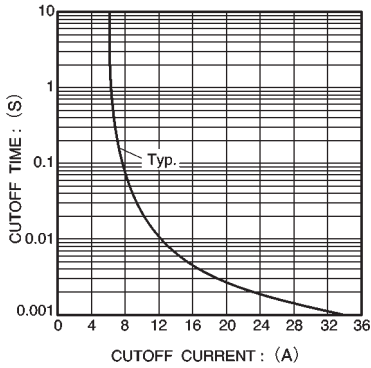
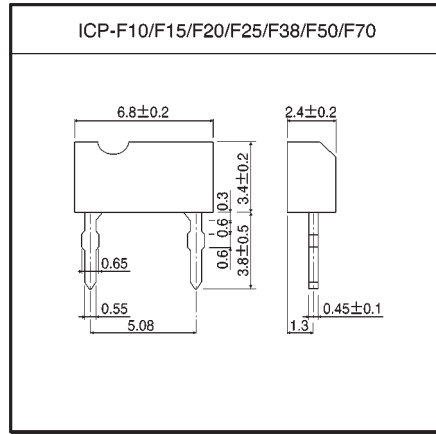
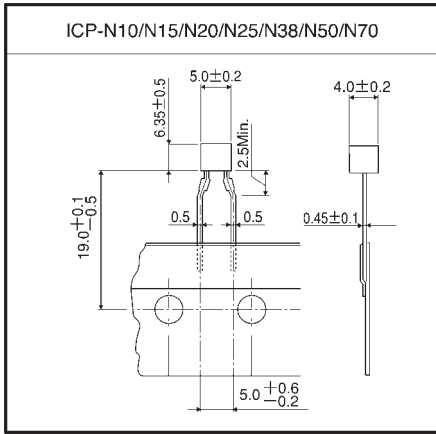


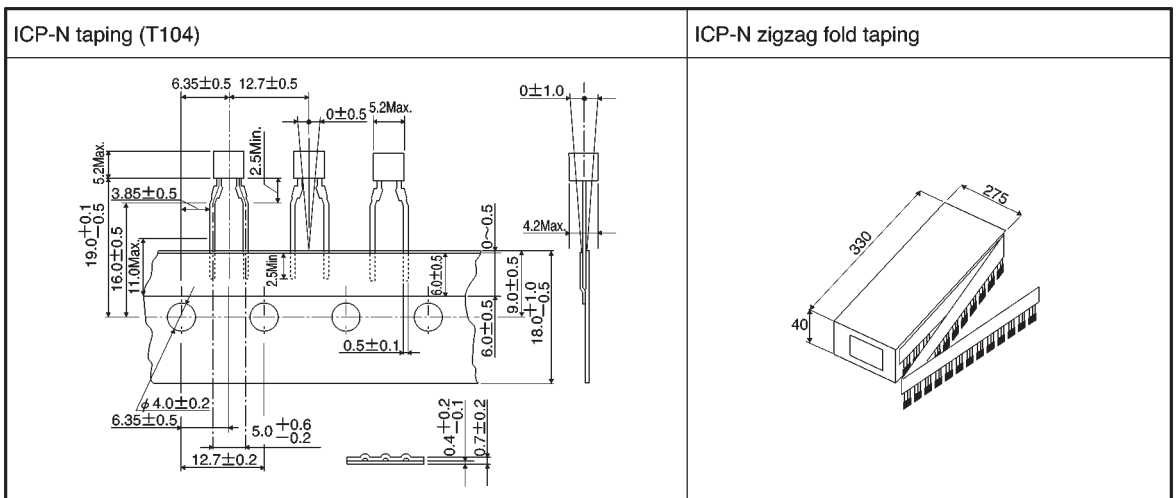
Fig.7 ICP-N70, ICP-F70

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

●External dimensions (Units: mm)



●Taping specifications (Units: mm)



Paekaging style for ICP-F is bulk.

●Packaging specifications

ICP-N, ICP-F	Part No.	Symbol	Basic ordering unit (pieces)	Part No.	Taping	Bulk
	ICP-N10/N15/N20/N25/N38/N50/N70	○	—	3000	2000	○
ICP-F10/F15/F20/F25/F38/F50/F70	—	○	—	—	—	○