

## **Posistor® For Inrush Current Suppression**

### 1. Part Numbering (Part Number)

PT   GL   14   AS   470   H   0B02   BZ  
 Product ID   Series   Dimensions   Temperature Characteristics   Resistance   Resistance Tolerance   Individual Specifications   Packaging

### 2. Ratings

MURATA P/N	Max. Voltage (AC or DC)	* 1 Resistance Value at +25°C	Max. inrush Current	* 2 Max charge energy at +60°C	Dimensions (mm)	
				D	d	
PTGL14AS330H0B02BZ	280 V	33Ω±25%	39A <sub>0-P</sub>	95.7J	16.0	0.6
PTGL14AS470H0B02BZ		47Ω±25%	27A <sub>0-P</sub>			
PTGL16AS330H0B02BZ		33Ω±25%	39A <sub>0-P</sub>	121.3J	18.0	
PTGL16AS470H0B02BZ		47Ω±25%	27A <sub>0-P</sub>			
PTGL16AS680H0B02BZ		68Ω±25%	19A <sub>0-P</sub>			
PTGL16AS101H0B02BZ		100Ω±25%	13A <sub>0-P</sub>			
PTGL20AS330H0D02BZ		33Ω±25%	39A <sub>0-P</sub>	178.6J	22.0	0.8
PTGL20AS470H0D02BZ		47Ω±25%	27A <sub>0-P</sub>			

\*1 The resist. value is measured at a point of maximum 2mm from the end of lead crimp.

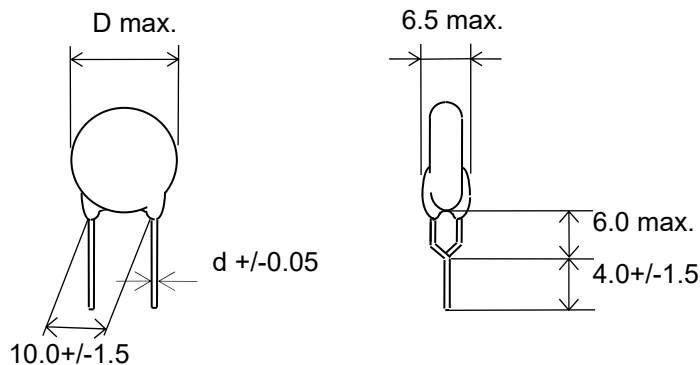
\*2 Max charge energy is defined as the maximum charged up energy value of over 95%.

The capacitance is calculated as the following formula.

$J=CV^2/2$    C:capacitance, V:peak voltage

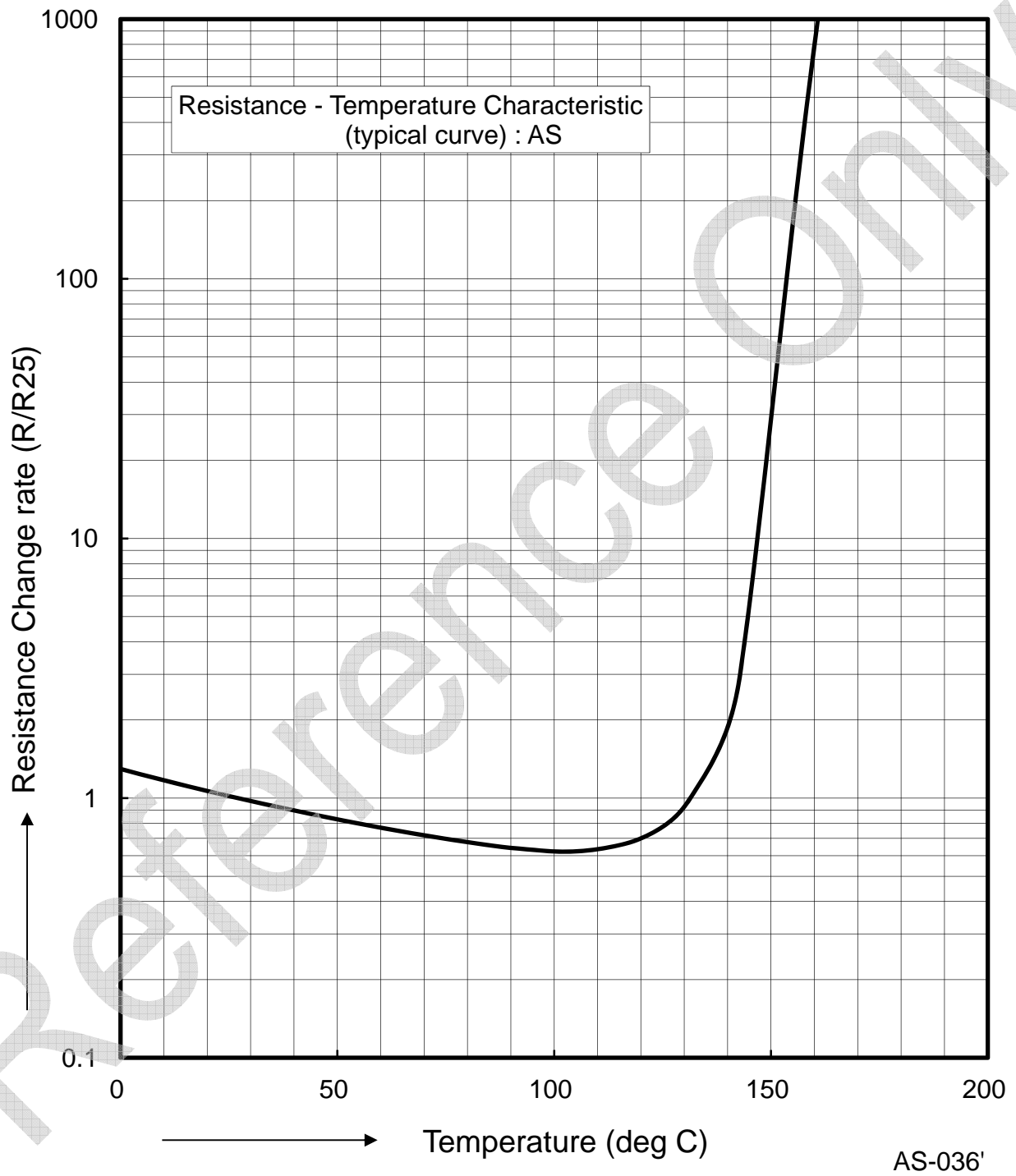
### 3. Dimensions (mm)

(Bulk type)



Note)

Some part of resin covering lead wire of Posistor may come off by some outside shock on the root of lead wire, but Posistor can be used normally for electrical and reliability characteristics.



## Notice for use

### Caution

1. This product is designed for application which is used under ordinary environment.(room temperature, normal humidity, normal pressure) Do not expose this to the following environments, because all these factor can deteriorate the characteristic of this and can cause failure or burn out.
  - (1) Corrosive gas or deoxidizing gas (Cl<sub>2</sub>, H<sub>2</sub>S, NH<sub>3</sub>, SO<sub>x</sub>, NO<sub>x</sub> etc.)
  - (2) Volatile, flammable gas
  - (3) Dusty place
  - (4) Place in a vacuum, reducing or putting pressure
  - (5) Place in splashed water, or high humidity and dewing place
  - (6) Salt water, oil, chemical liquid and solvent
  - (7) Vibratile place
  - (8) Other place equivalent to the above
2. Limitation of Applications  
 Please contact us before using our products for the under-mentioned applications requiring especially high reliability in order to prevent defects which might directly cause damage to other party's life body or property(listed below).
  - (1)Aircraft equipment (2)Aerospace equipment (3)Undersea equipment (4)Power plant control equipment
  - (5)Medical equipment (6)Transportation equipment(automobiles, trains, ships, etc.)
  - (7)Traffic signal equipment (8)Disaster prevention / Crime prevention equipment
  - (9)Data-processing equipment (10)Applications of similar complexity or with reliability requirements comparable to the applications listed in the above.
3. Be sure to provide an appropriate fail-safe function on your product to prevent a second damage that may be caused by the abnormal function or the failure of our product.

### Notice

1. Do not apply abnormal voltage/current exceeding the specified maximum value. Because they may deteriorate or destroy PTC element.
2. Use this product within the specified temperature. A higher temperature may deteriorate the characteristic or material.
3. When this product is operated, temperature of some area may be over 100°C to 160°C. Please make sure that surrounding parts and inserting material can withstand the temperature. If the surrounding part and material is kept under such condition, they may be deteriorated or may produce harmful gas(Cl<sub>2</sub>, H<sub>2</sub>S, NH<sub>3</sub>, SO<sub>x</sub>, NO<sub>x</sub> etc.). And, such harmful gas may deteriorate the element.
4. The resin coating of this product is not for insulating purpose. Keep an adequate insulating distance to surrounding components.
5. This product does not have waterproof construction. A splashed water may cause failure mode such as deterioration of characteristic or current leak.  
 So, Do NOT apply cleaning to immerse it into water or any solvent.
6. If you coat this product by resin, please evaluate the quality of this product before you use it.  
 The stress of force which is caused by coating materials or heat cycles may cause failure mode such as deterioration of characteristic or current leak in worst case.
7. This product is using the solder of 221+/-5 °C of melting points, in order to connect ceramics with a lead wire. Do not heat up a terminal area of this product over 180 °C.
8. The ceramic element of this product is fragile, and care must be taken not to load a excessive pressforce or not to give a shock at handling. Such forces may cause cracking or chipping.

9. Do not apply an excessive force to the lead. Otherwise, it may cause break off the junction between lead and element, or may crack element. Therefore, hold of element side lead wire is recommended when lead wire is bent or cut.
10. When the lead of this product is soldered, pay attention as follows to avoid the decline of element characteristic or break down the element.
  - (1) Use Rosin type flux or non-activated flux(the content of chlorine shall be less than 0.2%)
  - (2) Do not dip the body into flux. (Flux shall be coated to lead wire only for soldering.)
  - (3) The pre-heat up should be conducted without melting the soldering of this product.
11. Do not apply tensile force or separating force to lead wire at soldering.
12. Do not touch the resin case by soldering iron. The soldering point shall be min. 5 mm away from the root of lead wire. Please solder the following conditions.
  - Iron Tip Temperature : 360 degree C max.
  - Soldering Time : 4 seconds max. / 1 terminal
  - Number of Soldering : 1
13. To keep solderability of product from declining, following storage condition is recommended.
  - (1) Storage condition Temperature : -10 to +40°C  
Humidity : less than 75%RH(not dewing condition)
  - (2) Term : Please use this product within 6 months after shipment by first-in and first-out stocking system.
  - (3) Handling after unpacking of the minimum package : Reseal it promptly or store it seal open inside a sealed container with a drying agent.
  - (4) Place : Do not store this product in corrosive gas(SO<sub>x</sub>, Cl etc) or under sun-light.