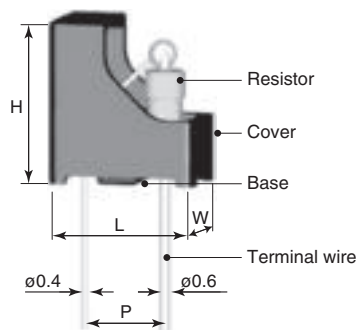


## features

- Quickly fuses to the overload
- Circuit is completely isolated after fusing
- Lightning surge test (IEC61000-4-5) effective
- Can be used in high temperature environment

## dimensions and construction



| Type | Dimensions inches (mm) |                        |                         |                       |
|------|------------------------|------------------------|-------------------------|-----------------------|
|      | W                      | D                      | H                       | P                     |
| TPR1 | .354±.004<br>(9.0±0.1) | .197±.004<br>(5.0±0.1) | .394±.004<br>(10.0±0.1) | .197±.02<br>(5.0±0.5) |

## ordering information

| New Part # | TPR | 1            | C                         | T                        | A                      | 100                | J                    |
|------------|-----|--------------|---------------------------|--------------------------|------------------------|--------------------|----------------------|
| Type       |     | Power Rating | Terminal Surface Material | Taping                   | Packaging              | Nominal Resistance | Resistance Tolerance |
|            |     | 1: 1W        | C: Sn-Cu                  | T: Taping<br>Blank: Bulk | A: AMMO<br>Blank: Bulk | J: 3 digits        | J: ±5%               |

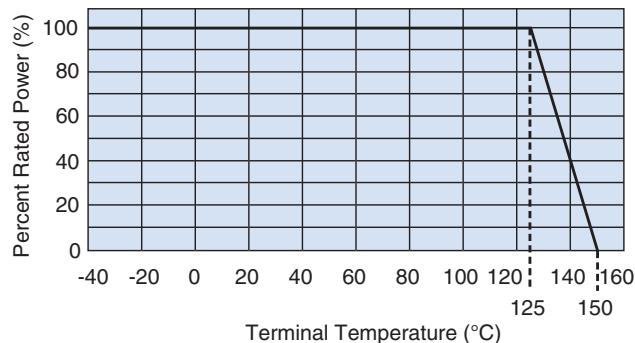
## applications and ratings

| Part Designation | Power Rating | Resistance Range | T.C.R.<br>(x 10 <sup>-6</sup> /K) | Terminal Temperature Under Rated Load | Operating Temperature Range | Maximum Open-Circuit Voltage | Lightning Surge Test* | Maximum Working Voltage | Maximum Overload Voltage |
|------------------|--------------|------------------|-----------------------------------|---------------------------------------|-----------------------------|------------------------------|-----------------------|-------------------------|--------------------------|
|                  |              | J: ±5% E24       |                                   |                                       |                             |                              |                       |                         |                          |
| TPR1             | 1W           | 2Ω ~ 10kΩ        | ~51Ω: 200<br>56Ω~: 350            | +125°C and less                       | -40°C ~ +150°C              | 320V a.c.                    | 1.5kV                 | $E=\sqrt{PxR}$          | $E=\sqrt{PxRx2}$         |

\* Lightning surge test at 10Ω

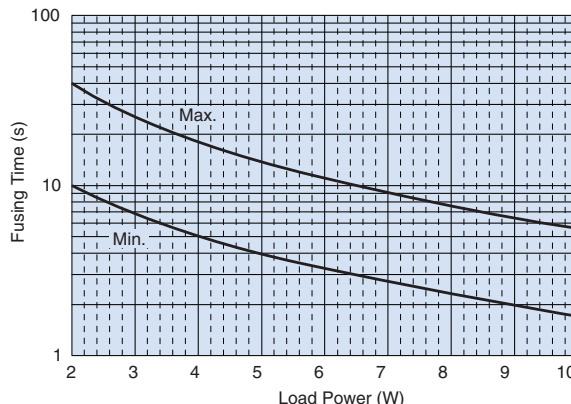
## environmental applications

### Derating Curve

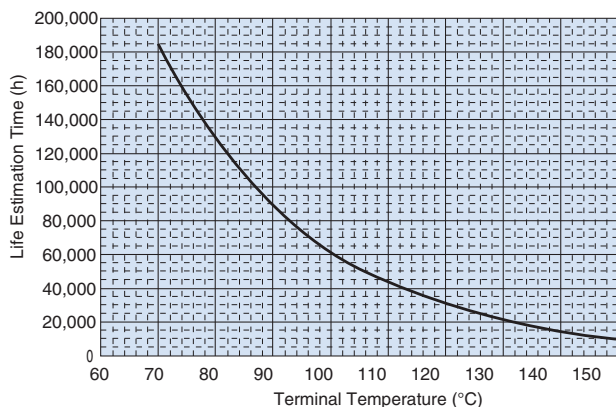


For resistors operated at a terminal temperature of 125°C or above, a power rating shall be derated in accordance with the above derating curve.

### Fusing Characteristics



### Life Estimation Curve



## Performance Characteristics

| Parameter                                           | Requirement                |         | Test Method                                                          |
|-----------------------------------------------------|----------------------------|---------|----------------------------------------------------------------------|
|                                                     | Limit                      | Typical |                                                                      |
| Resistance                                          | Within specified tolerance | —       | 25°C                                                                 |
| T.C.R.                                              | Within specified T.C.R.    | —       | +25°C/-40°C and +25°C/+125°C                                         |
| Fusing Characteristics                              | Within 6 seconds           | —       | Rated power x 10                                                     |
| Rapid Change of Temperature                         | ±(5%+0.05Ω)                | 2%      | -40°C/0.5 hr, +125°C/0.5 hr, 1000 cycles                             |
| Overload (Short Time)                               | ±(5%+0.05Ω)                | 2%      | Rated power x 2 for 5 seconds                                        |
| Resistance to Soldering Heat                        | ±(1%+0.05Ω)                | 0.3%    | 260°C ± 5°C, 10 ± 1 second                                           |
| Endurance at 125°C and Less of Terminal Temperature | ±(5%+0.05Ω)                | 3%      | Terminal temperature: 125°C, 1.5 hr ON, 0.5 hr OFF cycle, 1000 hours |