

## Z4RGP30MPH

### FEATURES

- \* Halogen-free type
- \* Glass passivated chip junctions
- \* Compliance to RoHS product
- \* Leadless chip form, no lead damage
- \* Low power loss, High efficiency
- \* High current capability
- \* Plastic package has Underwriters Laboratory Flammability Classification 94V-0

### APPLICATION

- \* AC/DC Power Supply
- \* Communication Equipment

### MECHANICAL DATA

**Case :** Packed with FRP substrate and epoxy underfilled

**Terminals :** Pure Tin plated (Lead-Free), solderable per MIL-STD-750, Method 2026.

**Polarity :** Laser marking symbols

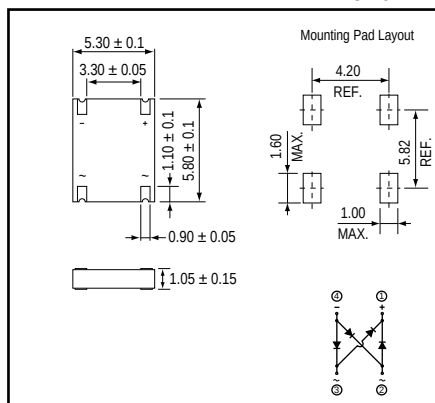
### PACKING

- \* 5,000 pieces per 13" (330mm ± 2mm) reel
- \* 2 reels per box
- \* 5 boxes per carton

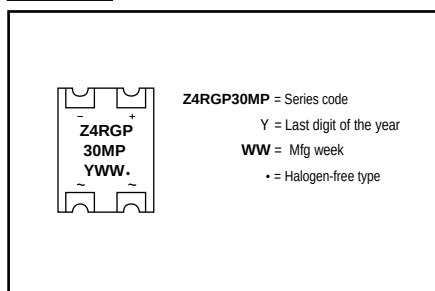
### OUTLINE DIMENSIONS

Case : Z4PAK

Unit : mm



### MARKING



### Absolute Maximum Ratings (Ta = 25 °C)

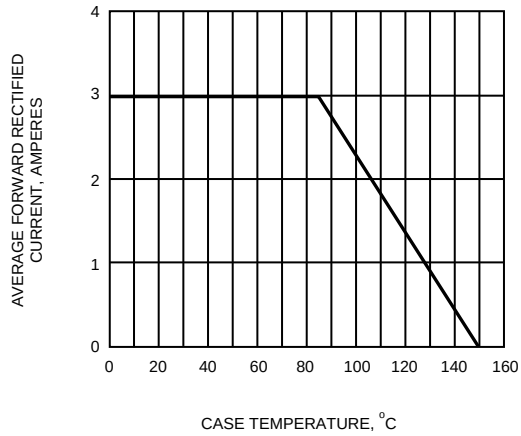
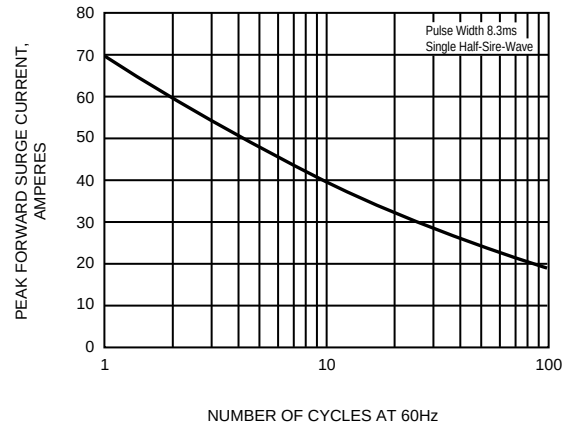
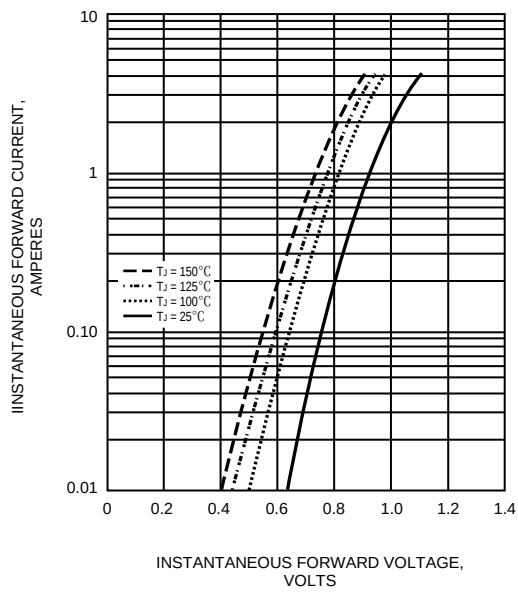
| ITEM                                             | Symbol   | Conditions                        | Rating      | Unit |
|--------------------------------------------------|----------|-----------------------------------|-------------|------|
| Repetitive peak reverse voltage                  | VRRM     |                                   | 1000        | V    |
| Average forward current                          | IF(AV)   |                                   | 3           | A    |
| Peak forward surge current                       | IFSM     | 8.3ms single half sine-wave       | 70          | A    |
| Reverse recovery time                            | Trr      | IF = 0.5A, IR = 1.0A, Irr = 0.25A | 500         | nS   |
| Operating junction and storage temperature Range | Tj, TSTG |                                   | -55 to +150 | °C   |

### Electrical characteristics (Ta = 25 °C)

| ITEM                            | Symbol           | Conditions                 | Min. | Typ. | Max. | Unit             |
|---------------------------------|------------------|----------------------------|------|------|------|------------------|
| Forward voltage                 | VF               | @ IF = 3A Ta = 25 °C       | -    | 1.10 | 1.30 | V                |
| Repetitive peak reverse current | IRRM             | VR = Max. VRRM Ta = 25 °C  | -    | 0.20 | 5    | uA               |
| Current squared time            | I <sup>2</sup> t | t < 8.3ms, Ta = 25 °C      | -    | 20.3 | -    | A <sup>2</sup> s |
| Thermal resistance              | Rth(JA)          | Junction to ambient (NOTE) | -    | 95   | -    | °C/W             |
|                                 | Rth(JC)          | Junction to case (NOTE)    | -    | 15   | -    |                  |

NOTES : (1) Thermal resistance, junction to ambient, measured on PC board with 50mm<sup>2</sup> (0.03mm thick) land areas.

(2) Preliminary specification

**FIG.1 - FORWARD CURRENT DERATING CURVE**

**FIG.2 - MAXIMUM NON-REPETITIVE  
PEAK FORWARD SURGE CURRENT**

**FIG.3 - TYPICAL INSTANTANEOUS  
FORWARD CHARACTERISTICS**

**FIG.4 - TYPICAL REVERSE CHARACTERISTICS**
