

## Z2PK204LH

### FEATURES

- \* Halogen-free type
- \* Compliance to RoHS product
- \* Lead less chip form, no lead damage
- \* Low power loss, High efficiency
- \* High current capability
- \* Low forward voltage drop
- \* Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- \* Patented ZPAK™ Package Technology

### APPLICATION

- \* Switching mode power supply applications
- \* Portable equipment battery applications
- \* High frequency rectification
- \* DC / DC Converter
- \* Telecommunication

### 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 Cathode band marking

**Weight :** 0.012 gram

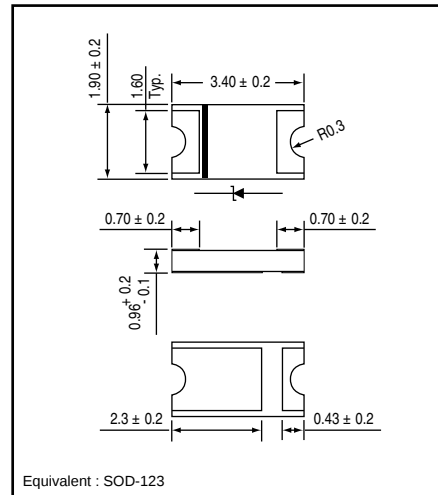
### PACKING

- \* 3,000 pieces per 7" (178mm ± 2mm) reel
- \* 4 reels per box
- \* 6 boxes per carton

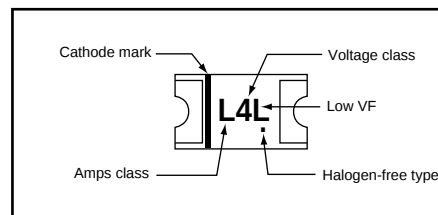
### OUTLINE DIMENSIONS

Case : Z2PAK

Unit : mm



### MARKING



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

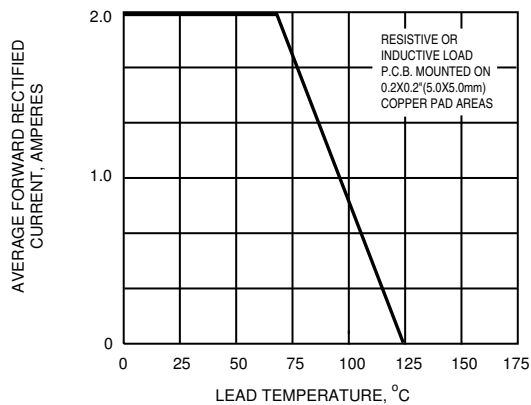
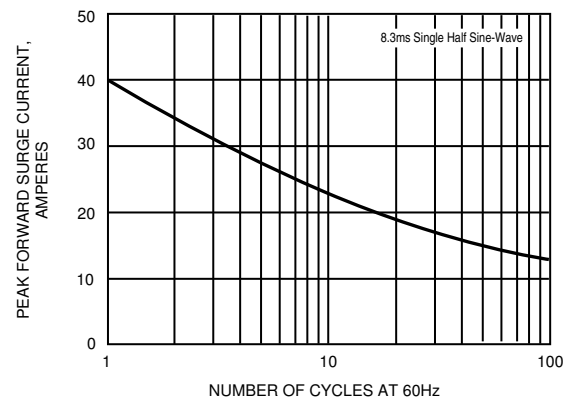
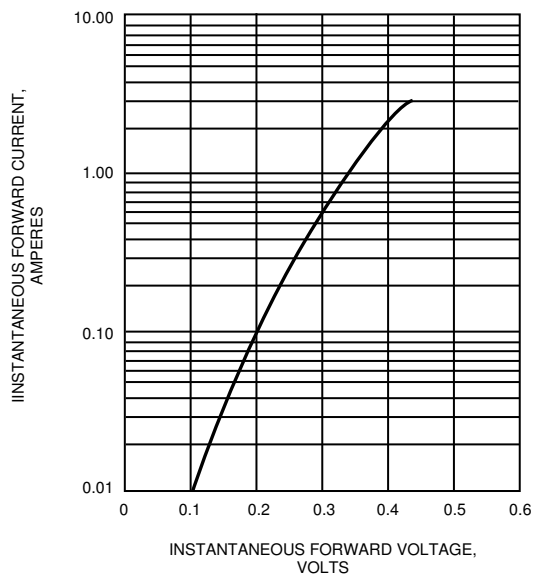
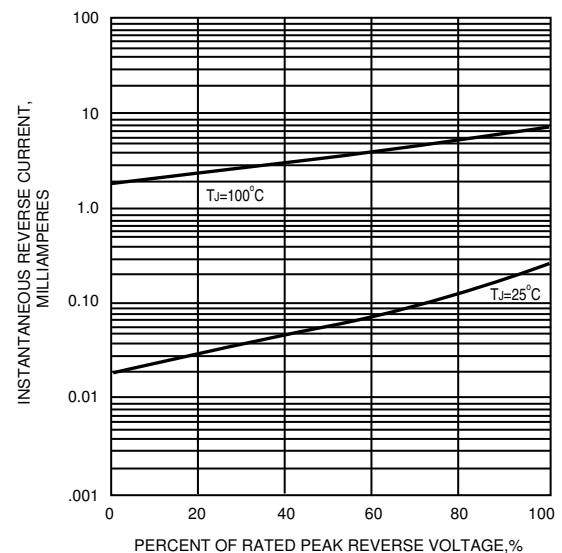
| ITEM                                 | Symbol | Conditions                  | Rating      | Unit |
|--------------------------------------|--------|-----------------------------|-------------|------|
|                                      |        |                             | Z2PK204LH   |      |
| Repetitive peak reverse voltage      | VRRM   |                             | 40          | V    |
| Average forward current              | IF(AV) |                             | 2.0         | A    |
| Peak forward surge current           | IFSM   | 8.3ms single half sine-wave | 40          | A    |
| Operating junction temperature Range | Tj     |                             | -55 to +125 | °C   |
| Storage temperature Range            | TSTG   |                             | -55 to +150 | °C   |

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

| ITEM                                     | Symbol  | Conditions                   | Min. | Typ. | Max. | Unit |
|------------------------------------------|---------|------------------------------|------|------|------|------|
| Forward voltage (NOTE 1)                 | VF      | IF = 0.5A                    | -    | 0.28 | -    | V    |
|                                          |         | IF = 1.0A                    | -    | 0.34 | -    |      |
|                                          |         | IF = 2.0A                    | -    | 0.39 | 0.40 |      |
| Repetitive peak reverse current (NOTE 1) | IRRM    | VR = Max. VRRM , Ta = 25 °C  | -    | 0.28 | 1.0  | mA   |
| Junction capacitance                     | Cj      | VR = 4V, f = 1.0 MHz         | -    | 115  | -    | pF   |
| Thermal resistance                       | Rth(JA) | Junction to ambient (NOTE 2) | -    | 70   | -    | °C/W |
|                                          | Rth(JL) | Junction to lead (NOTE 2)    | -    | 22   | -    | °C/W |

NOTES : (1) Pulse test width PW=300usec , 1% duty cycle.

(2) Mounted on P.C. board with 0.2 x 0.2"(5.0 x5.0mm) copper pad areas.

**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**

**FIG.5 - TYPICAL JUNCTION CAPACITANCE**
