

Z3PK2045H
● FEATURES

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

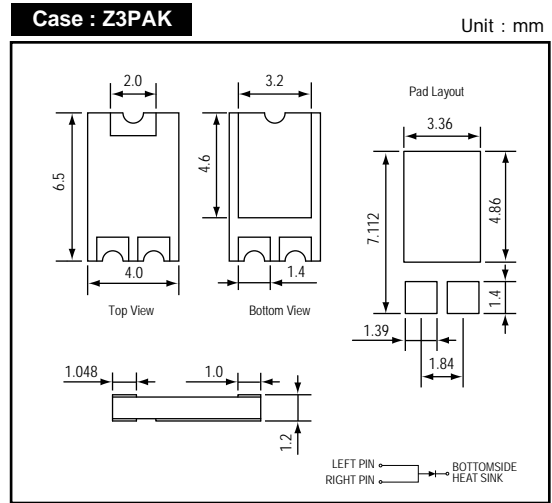
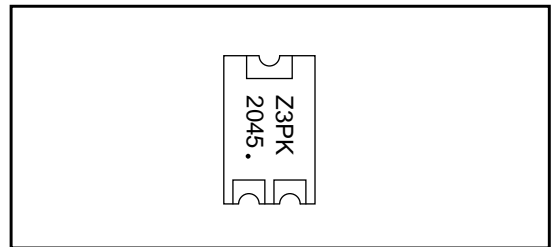
● APPLICATION

- * Switching mode power supply applications
- * Portable equipment battery applications
- * High frequency rectification
- * DC / DC Converter
- * Designed as bypass diodes for solar panels

● MECHANICAL DATA

Case : Packed with FRP substrate and epoxy underfilled

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

● OUTLINE DIMENSIONS

● MARKING

Absolute Maximum Ratings (Ta = 25 °C)

| ITEM | Symbol | Conditions | Rating | Unit |
|--------------------------------------|--------|-----------------------------|-------------|------|
| | | | Z3PK2045H | |
| Repetitive peak reverse voltage | VRRM | | 45 | V |
| Average forward current | IF(AV) | | 20 | A |
| Peak forward surge current | IFSM | 8.3ms single half sine-wave | 300 | A |
| Operating junction temperature Range | Tj | | -55 to +150 | °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 = 20A | - | 0.58 | 0.64 | V | |
| Repetitive peak reverse current | IRRM | VR = Max. VRRM | Ta = 25 °C | - | 0.02 | 0.10 | mA |
| | | | Ta = 125 °C | - | - | 50 | |
| Thermal resistance | Rth(JA) | Junction to ambient (NOTE 2) | - | 60 | - | °C/W | |
| | Rth(JL) | Junction to lead (NOTE 2) | - | 22 | - | °C/W | |
| | Rth(JC) | Junction to case (NOTE 2) | - | 20 | - | °C/W | |

NOTES : (1) Pulse test width PW=300usec , 1% duty cycle.
(2) Mounted on P.C.B. with 14 x 14mm copper pad areas.

FIG.1 - FORWARD CURRENT DERATING CURVE

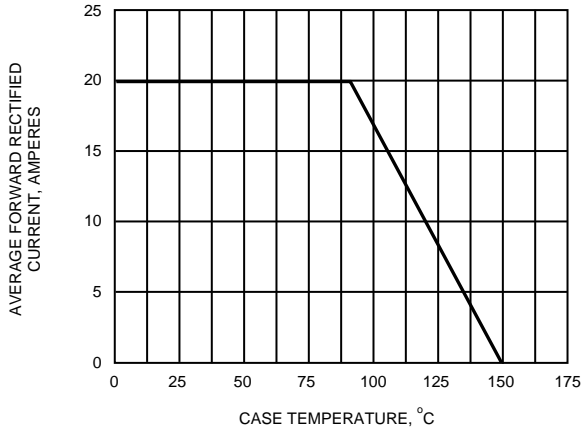


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

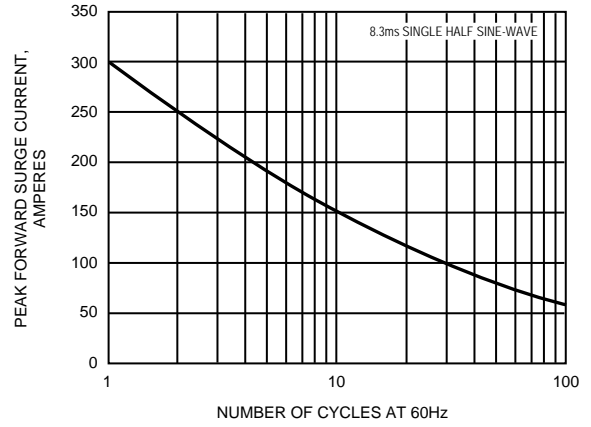


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

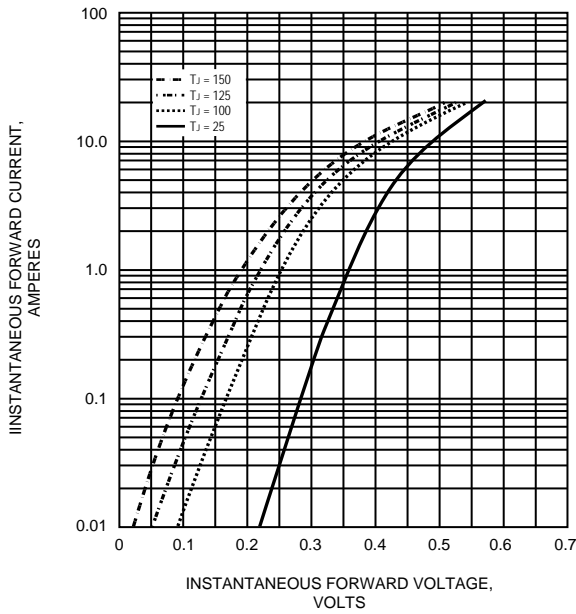


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

