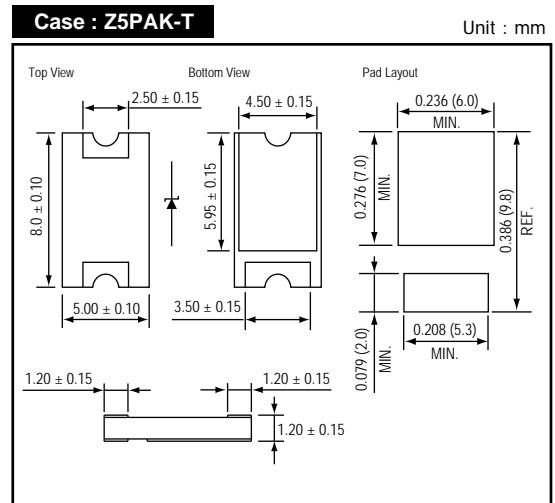
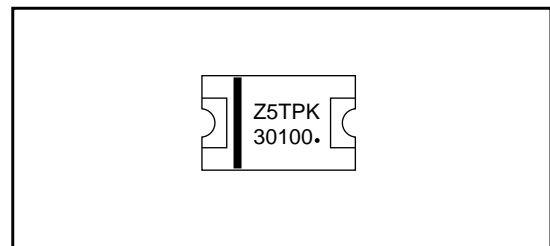


Z5TPK30100H
OUTLINE DIMENSIONS

MARKING

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.

Absolute Maximum Ratings (Ta = 25 °C)

| ITEM | Symbol | Conditions | Rating | Unit |
|--------------------------------------|--------|-----------------------------|-------------|------|
| Repetitive peak reverse voltage | VRRM | | 100 | V |
| Average forward current | IF(AV) | | 30 | A |
| Peak forward surge current | IFSM | 8.3ms single half sine-wave | 350 | 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 | - | 0.76 | 0.80 | V |
| | | @IF = 30A | - | 0.82 | 0.85 | |
| Repetitive peak reverse current | IRRM | @VR = Max. VRRM, Ta = 25 °C | - | 3 | 50 | uA |
| Thermal resistance | Rth(JA) | Junction to ambient (NOTE) | - | 78 | - | °C/W |
| | Rth(JC) | Junction to case (NOTE) | - | 13 | - | °C/W |

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

(2) Mounted on P.C.B. with 5.0 x 5.0mm copper pad areas.

FIG.1 - FORWARD CURRENT DERATING CURVE

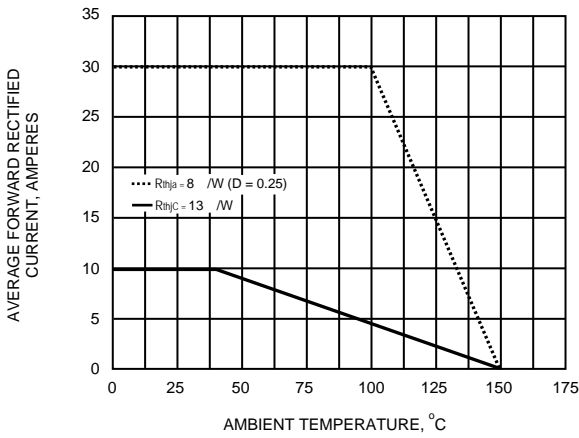


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

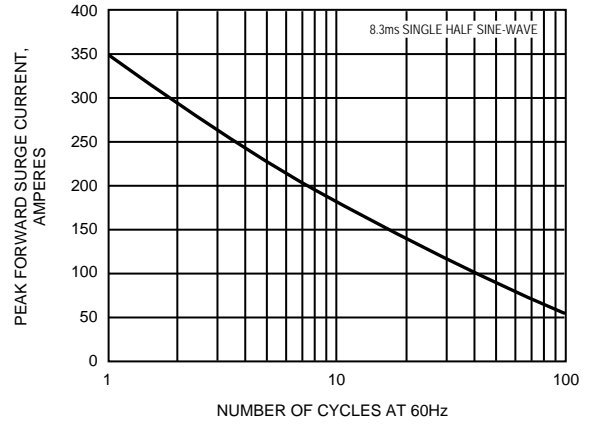


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

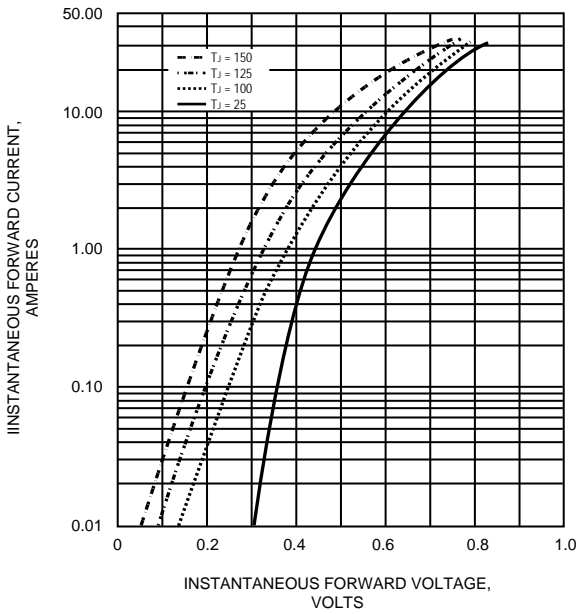


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

