

**A3PS15100UH**

● **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

● **APPLICATION**

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

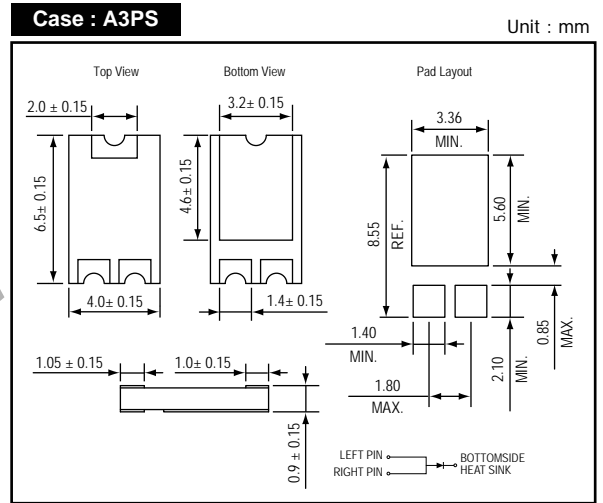
● **MECHANICAL DATA**

**Case :** Packed with copper substrate and epoxy underfilled  
**Terminals :** Pure Tin plated (Lead-Free), solderable per MIL-STD-750, Method 2026.

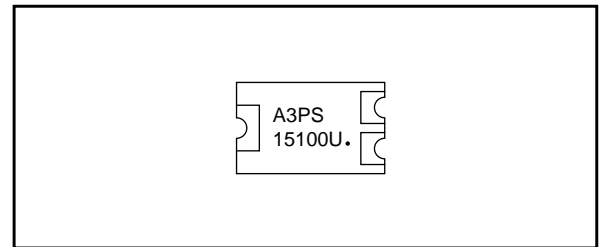
● **PACKING**

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

● **OUTLINE DIMENSIONS**



● **MARKING**



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

| ITEM                                 | Symbol | Conditions                  | Rating      | Unit |
|--------------------------------------|--------|-----------------------------|-------------|------|
| Repetitive peak reverse voltage      | VRRM   |                             | 100         | V    |
| Average forward current              | IF(AV) |                             | 15          | A    |
| Peak forward surge current           | IFSM   | 8.3ms single half sine-wave | 220         | 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 = 15A                     | Ta = 25 °C  | -    | 0.63 | 0.73 | V  |
|                                 |         |                              | Ta = 125 °C | -    | 0.58 | -    |    |
| Repetitive peak reverse current | IRRM    | VR = Max. VRRM               | Ta = 25 °C  | -    | 0.05 | 0.23 | mA |
|                                 |         |                              | Ta = 125 °C | -    | 25   | 50   |    |
| Thermal resistance              | Rth(JA) | Junction to ambient (NOTE 2) | -           | 113  | -    | °C/W |    |
|                                 | Rth(JC) | Junction to case (NOTE 2)    | -           | 24   | -    | °C/W |    |

NOTES : (1) Pulse test width PW=300usec , 1% duty cycle.  
 (2) Mounted on P.C.B. with ( 3.36 x 4.86mm & 1.39 x 1.4mm ) copper pad areas.  
 (3) Preliminary specification

FIG.1 - FORWARD CURRENT DERATING CURVE

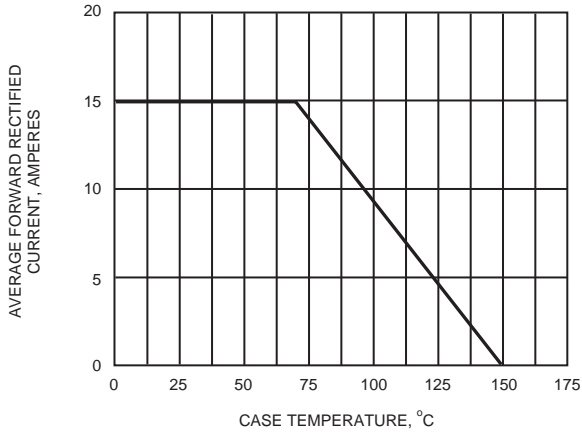


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

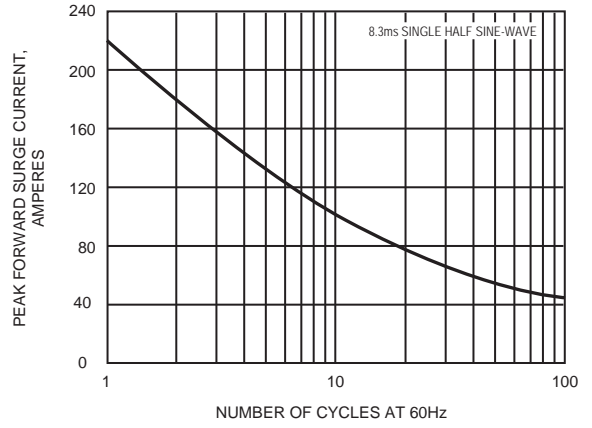


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

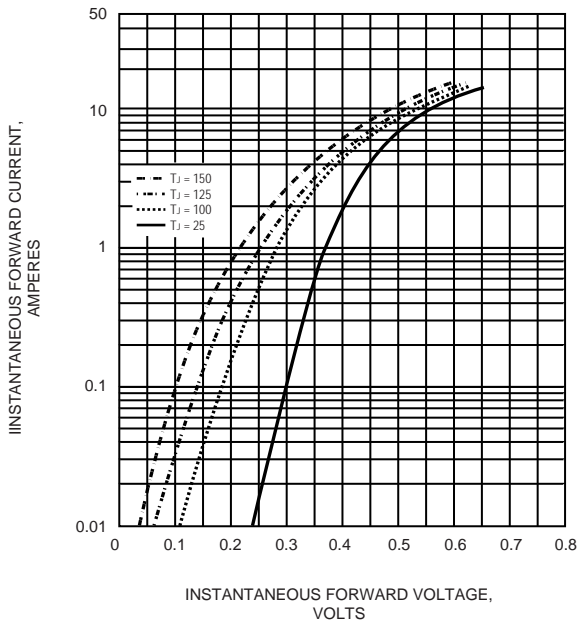


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

