

BSCD32H THRU BSCD310H

● **FEATURES**

- * Halogen-free type
- * Compliance to RoHS product
- * 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
- * Telecommunication

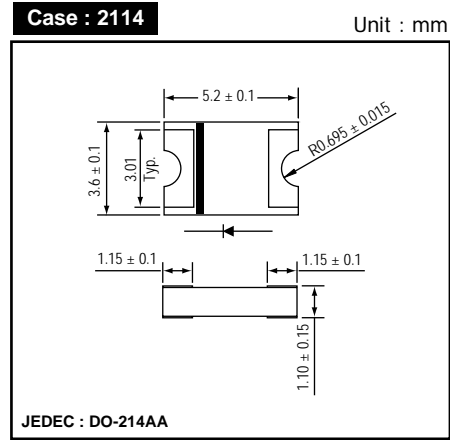
● **MECHANICAL DATA**

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 : 0.042 gram

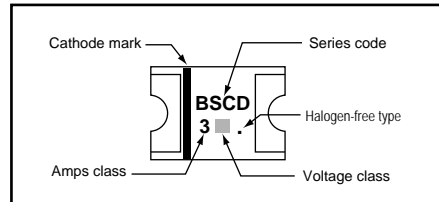
● **PACKING**

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

● **OUTLINE DIMENSIONS**



● **MARKING**



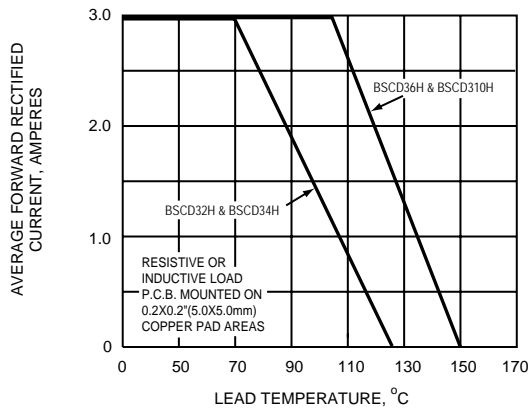
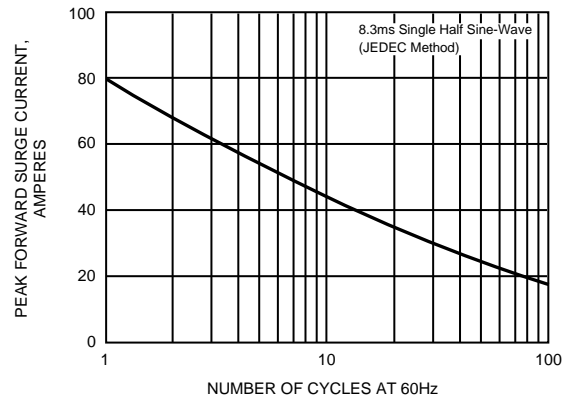
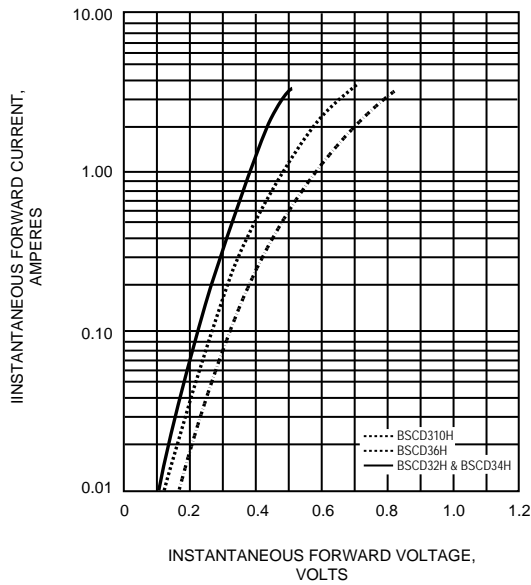
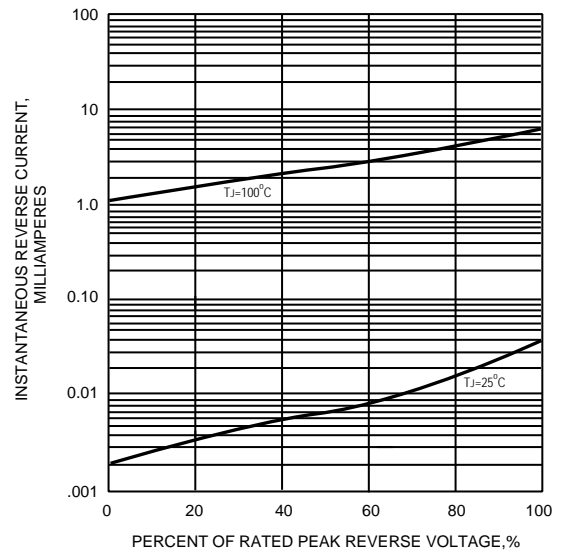
Absolute Maximum Ratings (Ta = 25 °C)

| ITEM | Symbol | Conditions | Rating | | | | Unit |
|--------------------------------------|--------|-----------------------------|-------------|---------|-------------|----------|------|
| | | | BSCD32H | BSCD34H | BSCD36H | BSCD310H | |
| Repetitive peak reverse voltage | VRRM | | 20 | 40 | 60 | 100 | V |
| Average forward current (SEE FIG.1) | IF(AV) | | 3.0 | | | | A |
| Peak forward surge current | IFSM | 8.3ms single half sine-wave | 80 | | | | A |
| Operating junction temperature Range | Tj | | -55 to +125 | | -55 to +150 | | °C |
| Storage temperature Range | TSTG | | -55 to +150 | | | | °C |

Electrical characteristics (Ta = 25 °C)

| ITEM | Symbol | Conditions | Type | Min. | Typ. | Max. | Unit |
|---------------------------------|---------|------------------------------|----------|------|------|------|------|
| Forward voltage (NOTE 1) | VF | IF = 0.5A | BSCD32H | - | 0.35 | - | V |
| | | IF = 1.0A | / | - | 0.40 | - | |
| | | IF = 3.0A | BSCD34H | - | 0.48 | 0.50 | |
| | | IF = 0.5A | BSCD36H | - | 0.38 | - | V |
| IF = 1.0A | | - | 0.48 | - | | | |
| IF = 3.0A | | - | 0.65 | 0.70 | | | |
| | | IF = 0.5A | BSCD310H | - | 0.48 | - | V |
| | | IF = 1.0A | | - | 0.58 | - | |
| | | IF = 3.0A | | - | 0.78 | 0.85 | |
| Repetitive peak reverse current | IRRM | VR = Max. VRRM , Ta = 25 °C | | - | 0.04 | 0.50 | mA |
| Junction capacitance | Cj | VR = 4V, f = 1.0 MHz | | - | 180 | - | pF |
| Thermal resistance | Rth(JA) | Junction to ambient (NOTE 2) | | - | 55 | - | °C/W |
| | Rth(JL) | Junction to lead (NOTE 2) | | - | 17 | - | °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.
 (3) Preliminary draft.

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
