

## SCD24DH

### ● 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 :** 0.02 gram

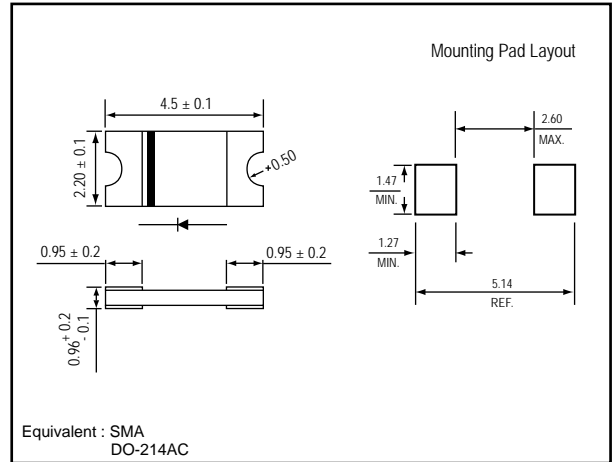
### ● PACKING

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

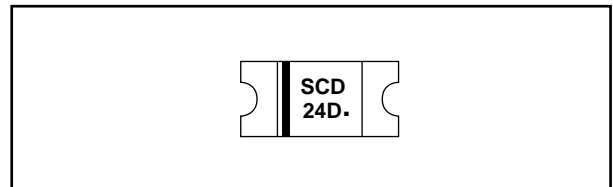
### ● OUTLINE DIMENSIONS

Case : 2010

Unit : mm



### ● MARKING



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

| ITEM                                 | Symbol | Conditions                  | SCD24DH     | Unit |
|--------------------------------------|--------|-----------------------------|-------------|------|
| 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 | 50          | 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                   | Type    | Min. | Typ. | Max. | Unit |
|---------------------------------|---------|------------------------------|---------|------|------|------|------|
| Forward voltage (NOTE 1)        | VF      | IF = 2.0A                    | SCD24DH | -    | 0.43 | 0.47 | V    |
| Repetitive peak reverse current | IRRM    | VR = Max. VRRM , Ta = 25 °C  |         | -    | 0.02 | 0.15 | mA   |
| Junction capacitance            | Cj      | VR = 4V, f = 1.0 MHz         |         | -    | 120  | -    | 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.

FIG.1 - FORWARD CURRENT DERATING CURVE

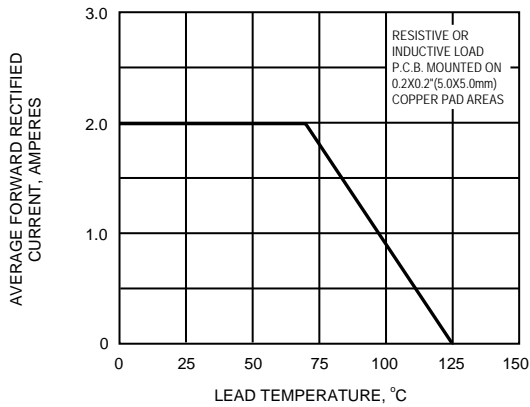


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

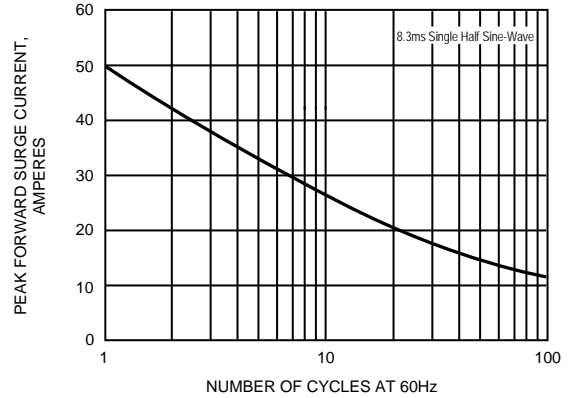


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

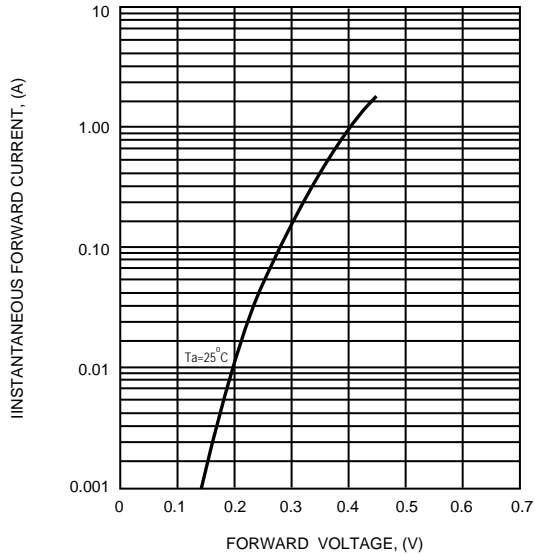


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

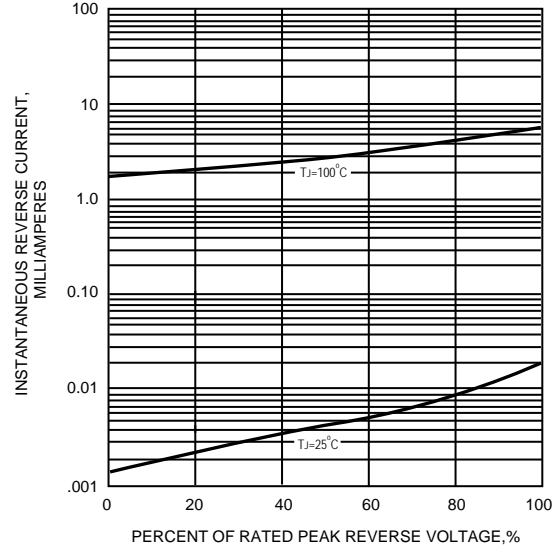


FIG.5 - TYPICAL JUNCTION CAPACITANCE

