



# SCD22 THRU SCD210

## SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 20 to 100 Volts

Forward Current - 2.0 Amperes

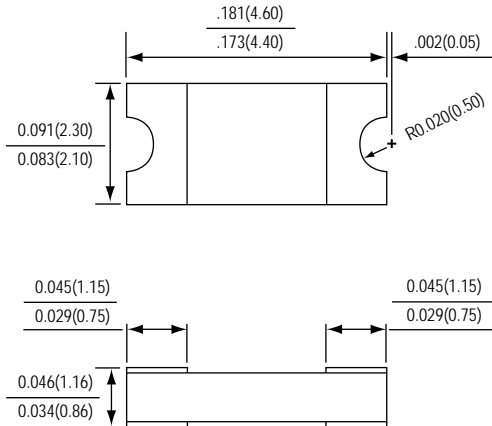
**PATENTED**

2010



### FEATURES

- \* Lead free product
- \* Leadless chip form , no lead damage
- \* Lead-free solder joint , no wire bond & lead frame
- \* Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- \* For surface mounted applications
- \* Low profile package
- \* Built-in strain relief
- \* Metal to silicon rectifier , majority carrier conduction
- \* Low power loss , High efficiency
- \* High current capability , low VF
- \* High surge capacity
- \* For using in low voltage high frequency switching power supply, inverters , free wheeling , and polarity protection applications



\*Dimensions in inches and (millimeters)

**SuperChip**<sup>TM</sup>

### 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 marking  
**Weight :** 0.02 gram

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

| Ratings at 25 °C ambient temperature unless otherwise specified.                                              | SYMBOLS | SCD22       | SCD24 | SCD26       | SCD210 | UNITS  |
|---------------------------------------------------------------------------------------------------------------|---------|-------------|-------|-------------|--------|--------|
| Maximum repetitive peak reverse voltage                                                                       | VRRM    | 20          | 40    | 60          | 100    | Volts  |
| Maximum RMS voltage                                                                                           | VRMS    | 14          | 28    | 42          | 70     | Volts  |
| Maximum DC blocking voltage                                                                                   | VDC     | 20          | 40    | 60          | 100    | Volts  |
| Maximum average forward rectified current (SEE FIG.1)                                                         | I (AV)  | 2.0         |       |             |        | Amps   |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)              | IFSM    | 50          |       |             |        | Amps   |
| Maximum instantaneous forward voltage at 2.0 A (NOTE 1)                                                       | VF      | 0.50        | 0.70  |             | 0.85   | Volts  |
| Maximum DC reverse current (NOTE 1) @T <sub>J</sub> =25°C at rated DC blocking voltage @T <sub>J</sub> =100°C | IR      | 0.5         |       |             |        | mA     |
| Typical thermal resistance (NOTE 2)                                                                           | R θJA   | 75          |       |             |        | °C / W |
|                                                                                                               | R θJL   | 17          |       |             |        |        |
| Operating junction temperature range                                                                          | TJ      | -55 to +125 |       | -55 to +150 |        | °C     |
| Storage temperature range                                                                                     | TSTG    | -55 to +150 |       |             |        | °C     |

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.

# RATINGS AND CHARACTERISTIC CURVES SCD22 THRU SCD210

FIG.1 - FORWARD CURRENT DERATING CURVE

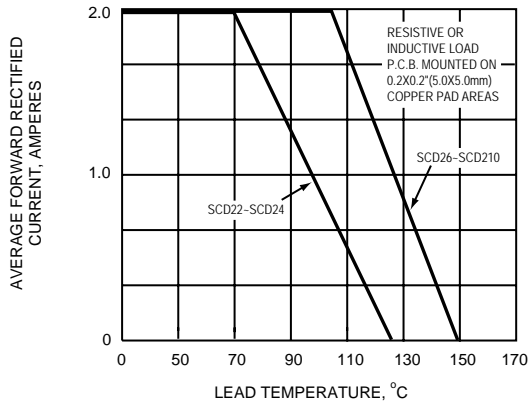


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

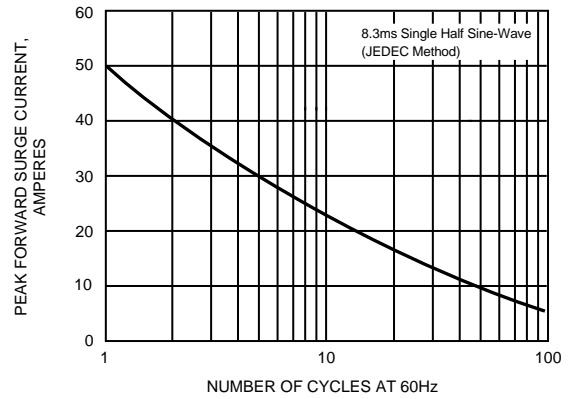


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

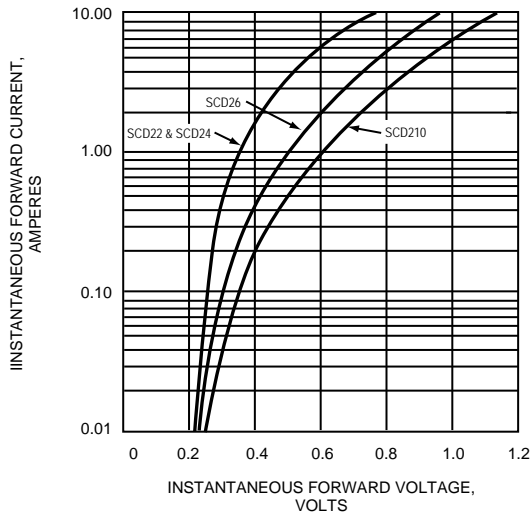


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

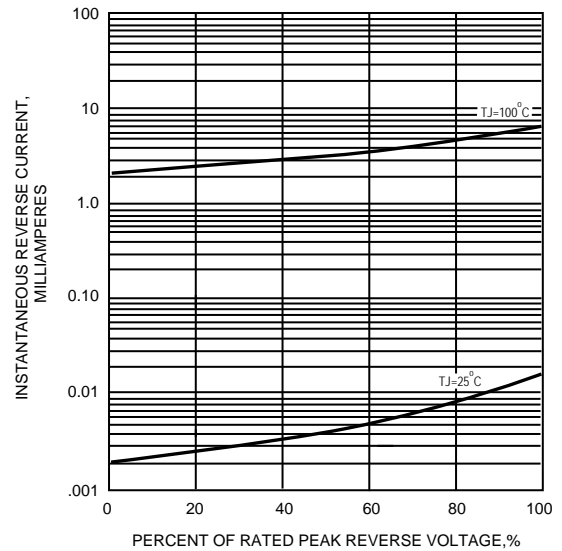


FIG.5 - TYPICAL JUNCTION CAPACITANCE

