

SD620CS~SD660CS

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

Voltage

20~60 V

Current

6 A

TO-252

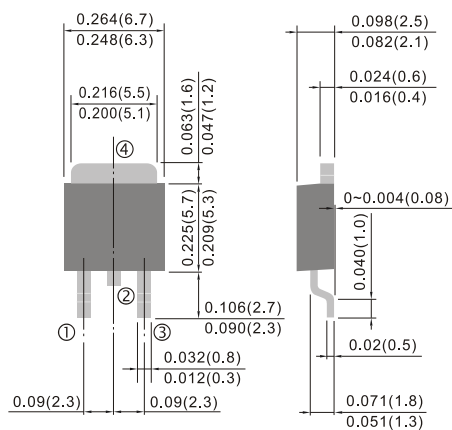
Unit : inch(mm)

Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O.
- For surface mounted applications in order to optimize board space
- Low power loss, High efficiency
- High surge capacity
- For use in low voltage, high frequency inverters free wheeling, and polarity protection applications
- High temperature soldering guaranteed : 260°C/10 seconds at terminals
- Lead free in compliance with EU RoHS 2011/65/EU directive.
- Green molding compound as per IEC61249 Std..(Halogen Free)

Mechanical Data

- Case: TO-252 Molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: As marking
- Approx. Weight: 0.0104 ounces, 0.297 grams
- Marking: Part number



Maximum Ratings ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

| PARAMETER | | SYMBOL | SD620CS | SD630CS | SD640CS | SD650CS | SD660CS | UNIT |
|---|------------------------|--------------------|-------------|---------|-------------|---------|---------|------|
| Maximum repetitive peak reverse voltage | | V _{RRM} | 20 | 30 | 40 | 50 | 60 | V |
| Maximum rms voltage | | V _{RMS} | 14 | 21 | 28 | 35 | 42 | V |
| Maximum dc blocking voltage | | V _R | 20 | 30 | 40 | 50 | 60 | V |
| Maximum average forward rectified current | | I _{F(AV)} | 6 | | | | | A |
| Peak forward surge current : 8.3ms single half sine-wave superimposed on rated load | | I _{FSM} | 75 | | | | | A |
| Maximum forward voltage at 3A per diode | | V _F | 0.55 | | | 0.7 | | V |
| Maximum dc reverse current | T _J =25 °C | I _R | 0.2 | | | 0.1 | | mA |
| at rated dc blocking voltage | T _J =100 °C | | 20 | | | 20 | | |
| Typical thermal resistance | | R _{θJC} | 5 | | | | | °C/W |
| Operating junction temperature range | | T _J | -55 to +125 | | -55 to +150 | | | °C |
| Storage temperature range | | T _{STG} | -55 to +150 | | | | | °C |

Note : Both Bonding and Chip structure are available.

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RATING AND CHARACTERISTIC CURVES

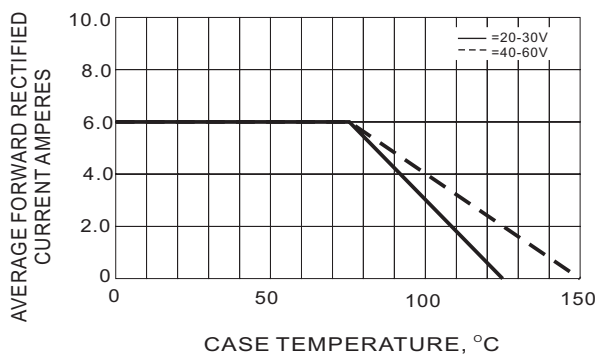


Fig.1 FORWARD CURRENT DERATING CURVE

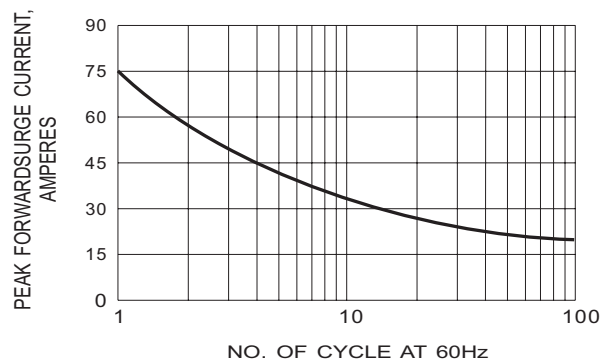


Fig.2 MAXIMUM NON - REPETITIVE SURGE CURRENT

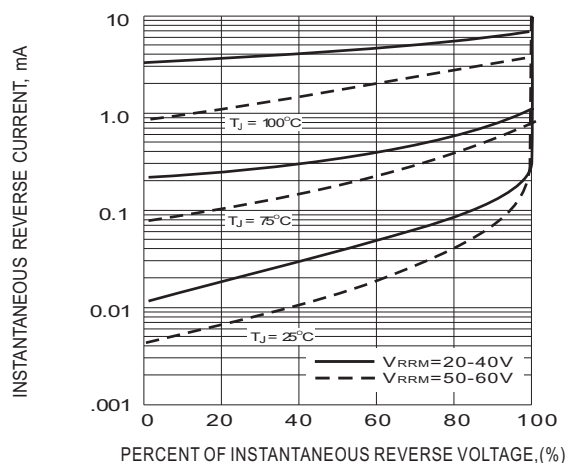


Fig.3 TYPICAL REVERSE CHARACTERISTICS

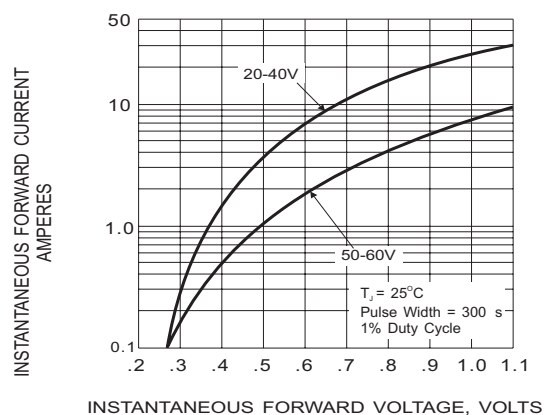


Fig.4 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

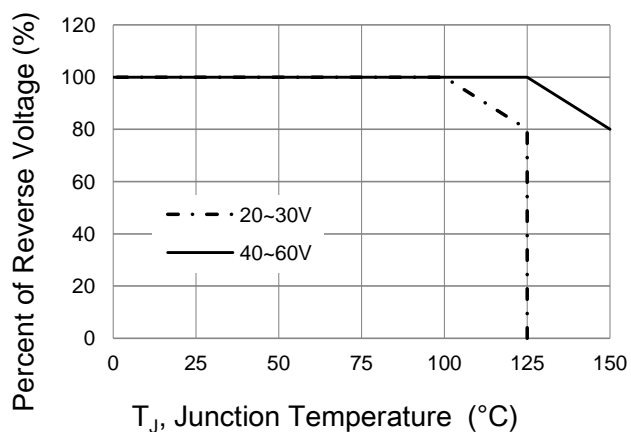
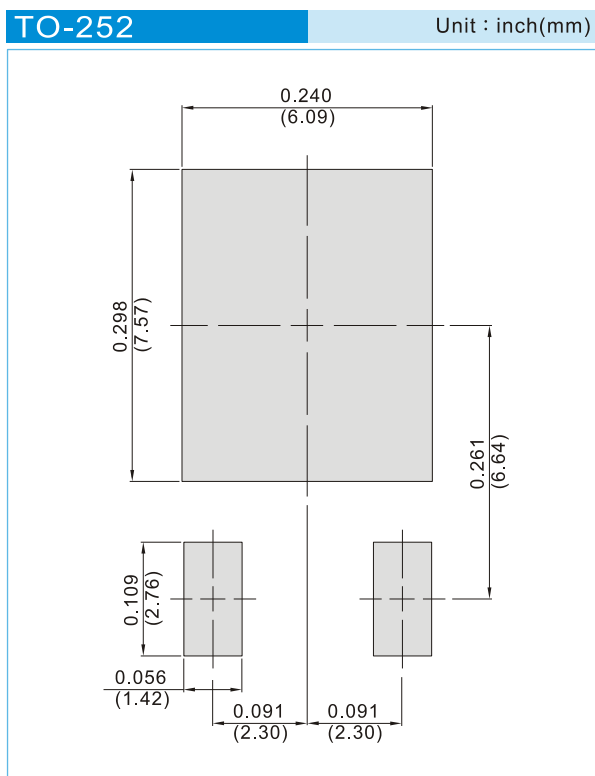


Fig.5 Operating Temperature Derating Curve

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MOUNTING PAD LAYOUT



ORDER INFORMATION

- Packing information
T/R – 3K per 13" plastic Reel

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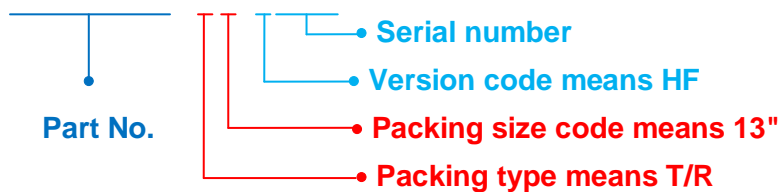
Part No_packing code_Version

SD620CS_L2_00001

SD620CS_S2_00001

For example :

RB500V-40_R2_00001



| Packing Code XX | | | | Version Code XXXXX | | |
|--------------------------------------|----------------------|----------------------------------|----------------------|---------------------------|----------------------|---------------------------------------|
| Packing type | 1 st Code | Packing size code | 2 nd Code | HF or RoHS | 1 st Code | 2 nd ~5 th Code |
| Tape and Ammunition Box (T/B) | A | N/A | 0 | HF | 0 | serial number |
| Tape and Reel (T/R) | R | 7" | 1 | RoHS | 1 | serial number |
| Bulk Packing (B/P) | B | 13" | 2 | | | |
| Tube Packing (T/P) | T | 26mm | X | | | |
| Tape and Reel (Right Oriented) (TRR) | S | 52mm | Y | | | |
| Tape and Reel (Left Oriented) (TRL) | L | PANASERT T/B CATHODE UP (PBCU) | U | | | |
| FORMING | F | PANASERT T/B CATHODE DOWN (PBCD) | D | | | |



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