



# SD320YT~SD360YT

## SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

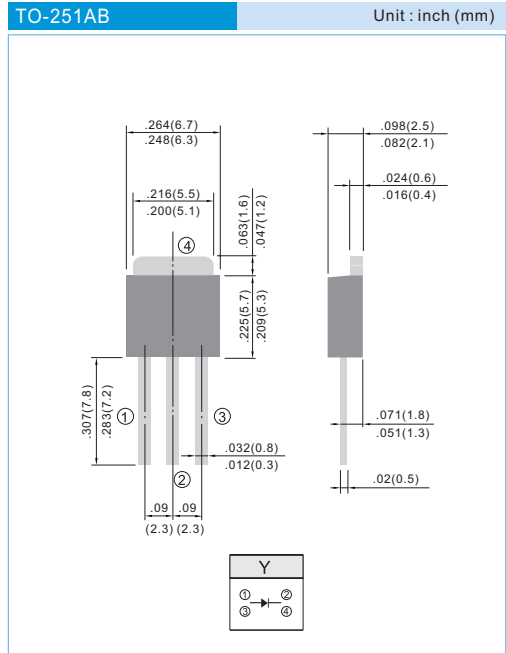
**VOLTAGE** 20 to 60 Volts **CURRENT** 3.0 Ampere

### FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- For surface mounted applications
- Low profile package
- Built-in strain relief
- Low power loss, High efficiency
- High surge capacity
- For use in low voltage high frequency inverters, free wheeling, and polarity protection applications
- In compliance with EU RoHS 2002/95/EC directives

### MECHANICAL DATA

- Case: TO-251AB molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: As marking
- Weight: 0.0104 ounces, 0.297grams.



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%

| PARAMETER   | SYMBOL          | SD320YT     | SD330YT | SD340YT | SD350YT     | SD360YT | UNITS                       |
|---|-----------------|-------------|---------|---------|-------------|---------|-----------------------------|
| Maximum Recurrent 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   | $V_{DC}$        | 20          | 30      | 40      | 50          | 60      | V                           |
| Maximum Average Forward Rectified Current at $T_c = 75^\circ\text{C}$   | $I_{F(AV)}$     | 3.0         |         |         |             |         | A                           |
| Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load(JEDEC method)   | $I_{FSM}$       | 75          |         |         |             |         | A                           |
| Maximum Forward Voltage at $I_F = 3.0\text{A}$ (Note 1)   | $V_F$           | 0.50        |         |         | 0.64        |         | V                           |
| Maximum DC Reverse Current at Rated DC Blocking Voltage $T_J = 25^\circ\text{C}$<br>Maximum DC Reverse Current at Rated DC Blocking Voltage $T_J = 100^\circ\text{C}$ | $I_R$           | 0.2<br>20   |         |         | 0.1<br>20   |         | mA                          |
| Typical Thermal Resistance (Note 2)   | $R_{\theta JC}$ | 5.0         |         |         |             |         | $^\circ\text{C} / \text{W}$ |
| Operating Junction and Storage Temperature Rang   | $T_J, T_{STG}$  | -55 to +125 |         |         | -55 to +150 |         | $^\circ\text{C}$            |

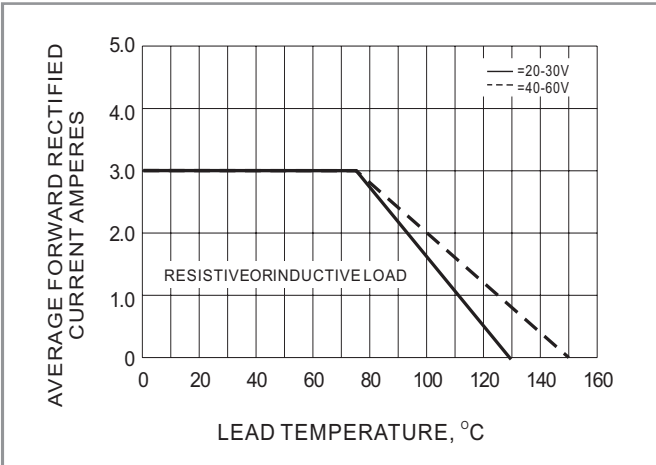
#### NOTES:

1. Pulse Test with PW = 300µsec, 1% Duty Cycle.
2. Mounted on P.C. Board with 8.0mm<sup>2</sup> (.013mm thick) copper pad areas.

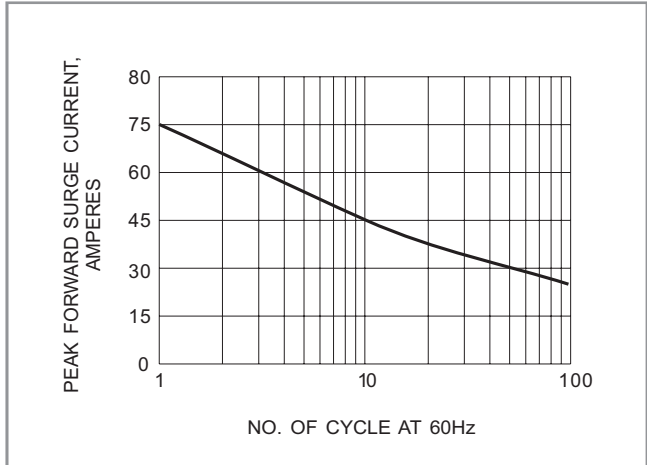


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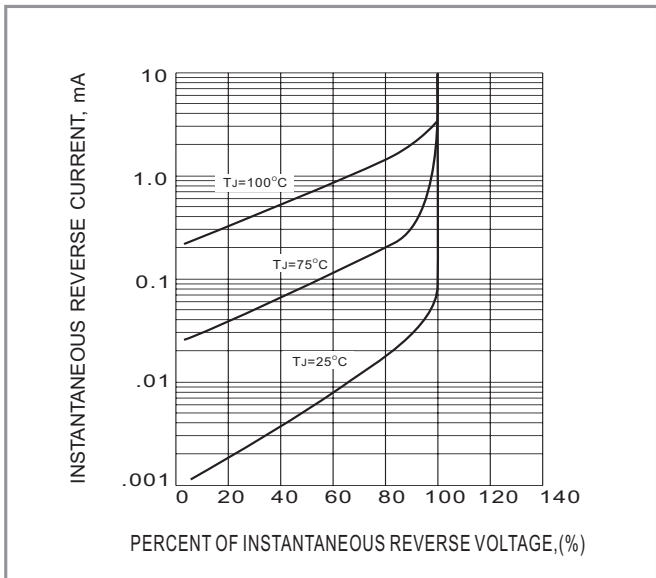
## RATING AND CHARACTERISTIC CURVES



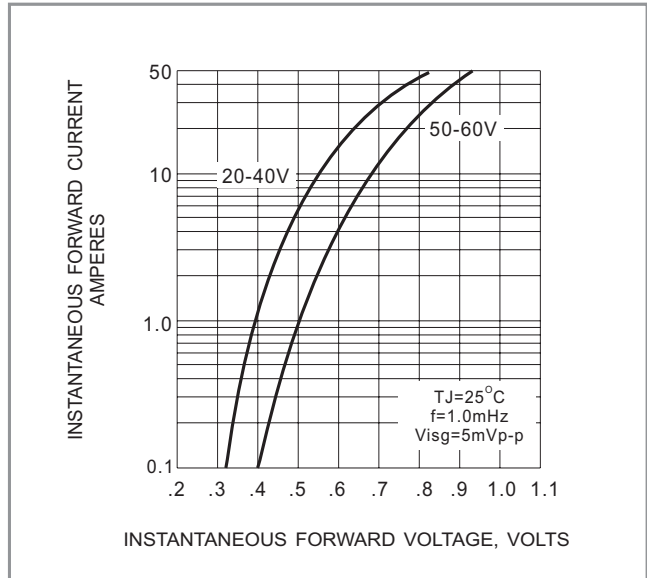
**Fig.1- FORWARD CURRENT DERATING CURVE**



**Fig.2- MAXIMUM NON - REPETITIVE SURGE CURRENT**



**Fig.3- TYPICAL REVERSE CHARACTERISTICS**



**Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**