



# DATA SHEET

## SD520YT~SD5100YT

### SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

**VOLTAGE** 20 to 100 Volts **CURRENT** 5 Amperes

TO-251AB

Unit : inch (mm)

#### 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
- Pb free product are available : 99% Sn above can meet Rohs environment substance directive request

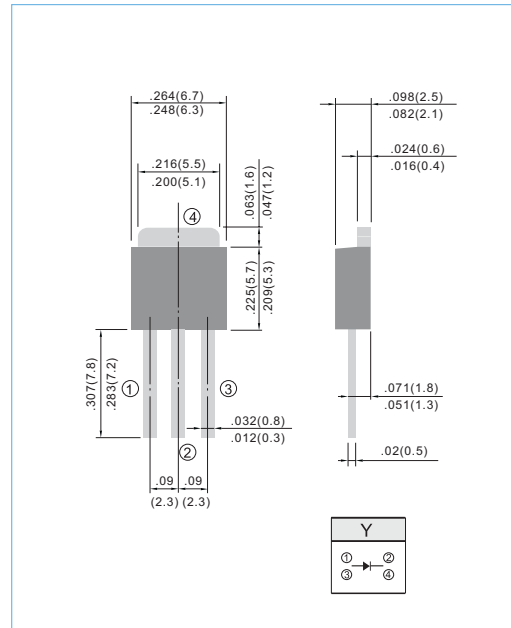
#### MECHANICAL DATA

Case: TO-251AB molded plastic

Terminals: Solder plated, solderable per MIL-STD-202G, Method 208

Polarity: As marking

Weight: 0.015 ounces, 0.4grams.



#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

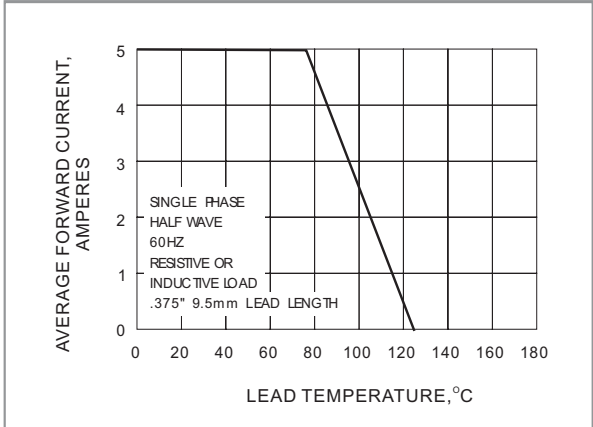
Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%

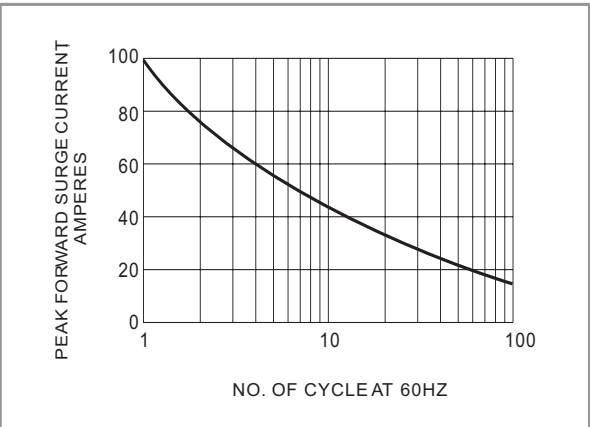
| PARAMETER   | SYMBOL          | SD520YT     | SD530YT | SD540YT | SD550YT | SD560YT | SD580YT | SD5100YT | UNITS          |
|---|-----------------|-------------|---------|---------|---------|---------|---------|----------|----------------|
| Maximum Recurrent Peak Reverse Voltage  | $V_{RRM}$       | 20          | 30      | 40      | 50      | 60      | 80      | 100      | V              |
| Maximum RMS Voltage   | $V_{RMS}$       | 14          | 21      | 28      | 35      | 42      | 56      | 70       | V              |
| Maximum DC Blocking Voltage   | $V_{DC}$        | 20          | 30      | 40      | 50      | 60      | 80      | 100      | V              |
| Maximum Average Forward Rectified Current .375"(9.5mm) lead length at $T_c = 75^\circ C$          | $I_{AV}$        | 5.0         |         |         |         |         |         |          | A              |
| Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load(JEDEC method) | $I_{FSM}$       | 100         |         |         |         |         |         |          | A              |
| Maximum Forward Voltage at 5.0A   | $V_F$           | 0.55        |         | 0.75    |         | 0.85    |         | V        |                |
| Maximum DC Reverse Current $T_c = 25^\circ C$ at Rated DC Blocking Voltage $T_c = 100^\circ C$    | $I_R$           | 0.2         |         |         | 20      |         |         | mA       |                |
| Maximum Thermal Resistance  | $R_{\theta JC}$ | 5.0         |         |         |         |         |         |          | $^\circ C / W$ |
| Operating Junction Temperature Range  | $T_J$           | -50 to +125 |         |         |         |         |         |          | $^\circ C$     |
| Storage Temperature Range   | $T_{STG}$       | -65 to +150 |         |         |         |         |         |          | $^\circ C$     |



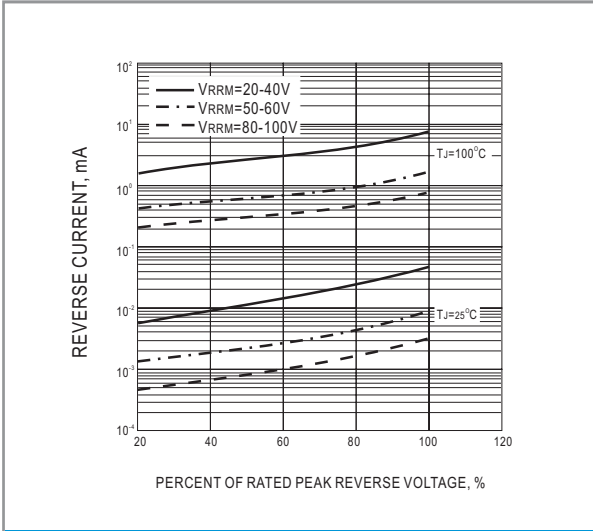
**RATING AND CHARACTERISTIC CURVES**



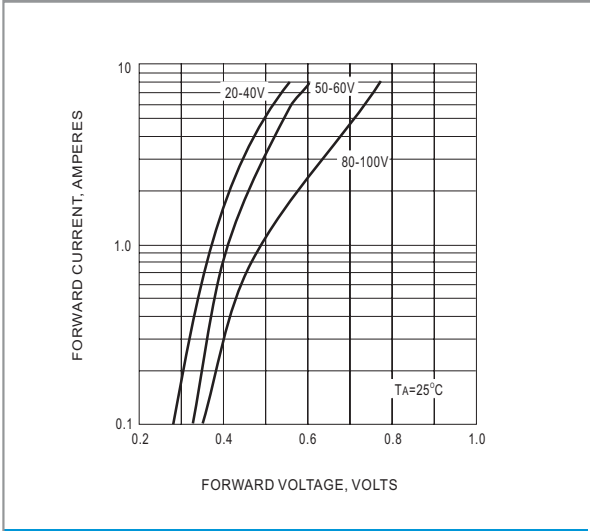
**Fig. 1- FORWARD CURRENT DERATING CURVE**



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



**Fig. 3- TYPICAL REVERSE CHARACTERISTIC**



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