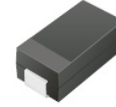
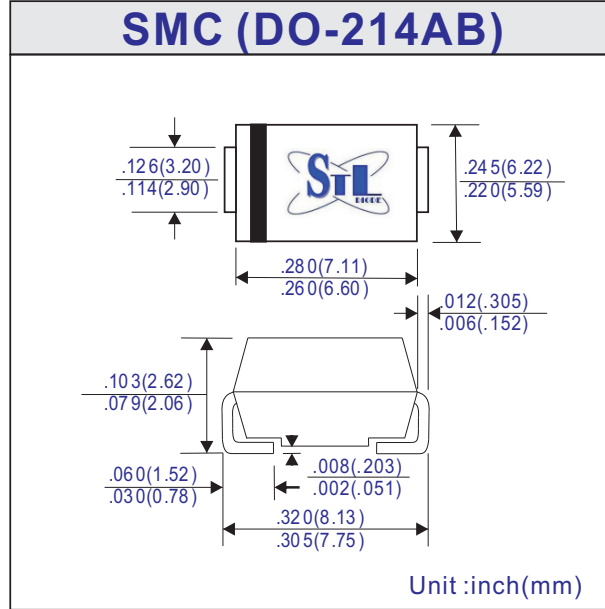




**3.0A SMD Sintered Glass Passivated Junction  
 Super Fast Recovery Rectifiers - 50V to 600V**



| FEATURES  |
|---|
| <ul style="list-style-type: none"> <li>• High temperature metallurgically bonded construction</li> <li>• Sintered glass cavity free junction</li> <li>• Ideal for surface mount automotive applications</li> <li>• For use in high frequency rectifier circuits</li> <li>• Super fast switching for high efficiency</li> <li>• High temperature soldering 450°C/5 sec at terminals</li> <li>• Lead-free parts for green partner, meet environmental standards of MIL-S-19500</li> </ul> |

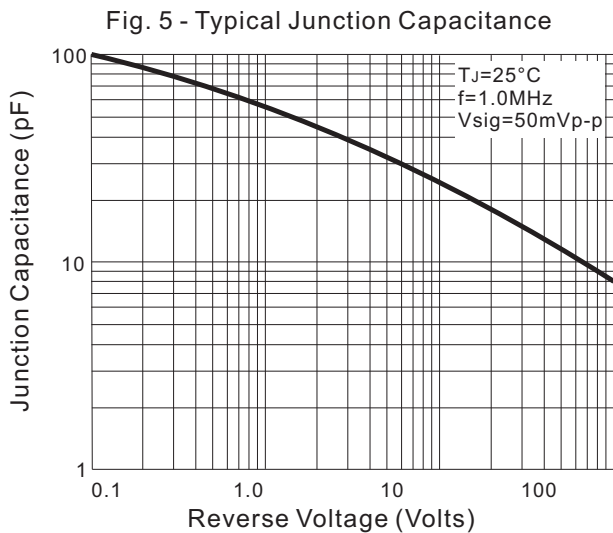
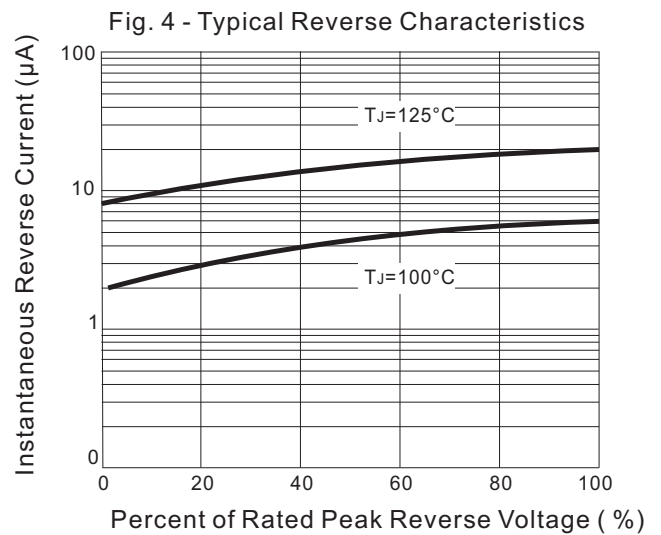
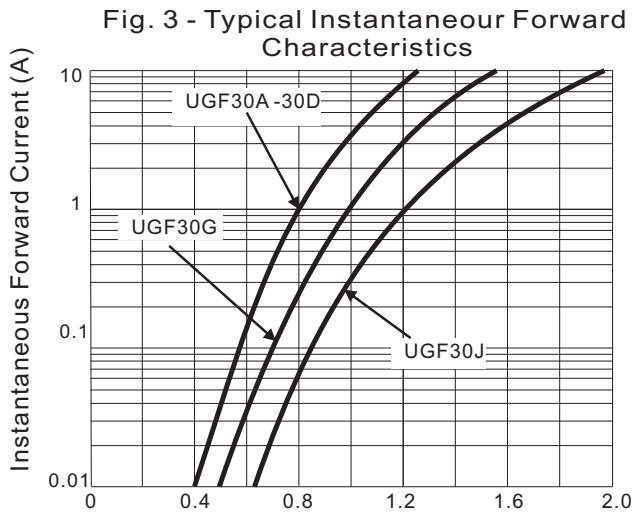
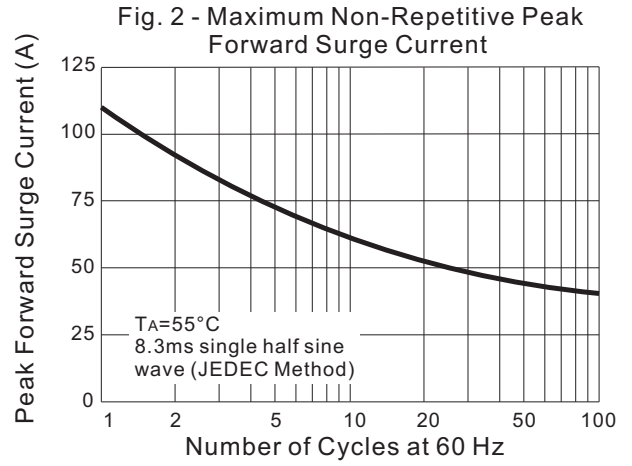
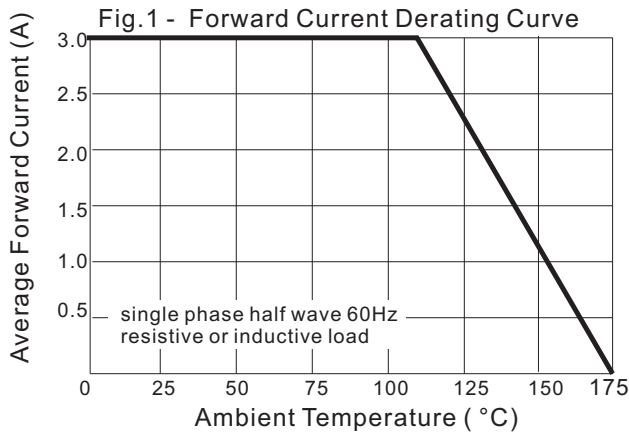


| MECHANICAL DATA  |
|--|
| <ul style="list-style-type: none"> <li>• Case: Molded plastic SMC/DO-214AB</li> <li>• Epoxy: UL94-V0 rated flame retardant</li> <li>• Terminals: Solderable per MIL-STD-750 Method 2026</li> <li>• Polarity: Color band denotes cathode end</li> <li>• Mounting Position: Any</li> <li>• Weight: 0.007 ounces, 0.25 grams</li> </ul> |

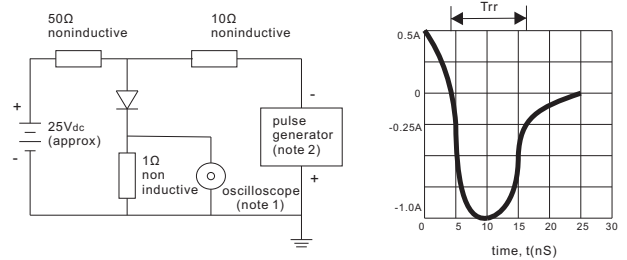
**MAXIMUM RATING AND ELECTRICAL CHARACTERISTICS**  
 Ratings at 25°C ambient temperature unless otherwise specified

|   | Symbols | UGF<br>30A   | UGF<br>30B | UGF<br>30D | UGF<br>30G | UGF<br>30J | Units |
|---|---------|--------------|------------|------------|------------|------------|-------|
| Maximum Recurrent Peak Reverse Voltage  | VRRM    | 50           | 100        | 200        | 400        | 600        | Volts |
| Maximum RMS Voltage   | VRMS    | 35           | 70         | 140        | 280        | 420        | Volts |
| Maximum DC Blocking Voltage   | VDC     | 50           | 100        | 200        | 400        | 600        | Volts |
| Maximum Average Forward Rectified Current<br>0.375" (9.5mm) lead length at TL=110°C, See Figure 1   | IF(AV)  | 3.0          |            |            |            |            | A     |
| Peak Forward Surge Current<br>8.3mS single half sine-wave superimposed on rated load (JEDEC Method) | IFSM    | 115.0        |            |            |            |            | A     |
| Maximum Instantaneous Forward Voltage at 3.0A   | VF      | 0.95         |            | 1.3        | 1.5        | Volts      |       |
| Maximum DC Reverse Current<br>at Rated DC Blocking Voltage<br>TA= 25°C<br>TA=150°C                  | IR      | 5.0<br>100.0 |            |            |            |            | µA    |
| Typical Reverse Recovery Time (Note 1)  | Trr     | 35           |            |            | 50         | nS         |       |
| Typical Junction Capacitance (Note 2)   | CJ      | 45           |            |            |            |            | pF    |
| Typical Thermal Resistance (Note 3)   | RθJA    | 16           |            |            |            |            | °C/W  |
| Operating Junction Temperature Range  | TJ      | -65~+175     |            |            |            |            | °C    |
| Storage Temperature Range   | TSTG    | -65 ~ +175   |            |            |            |            | °C    |

Note 1. Reverse recovery time test conditions: IF=0.5A, IR=1.0A, IRR=0.25A  
 2. Measure at 1.0MHz and applied reverse voltage of 4.0Volts.  
 3. Thermal resistance from junction to 0.375" (9.5mm) lead length P.C.B. mounted



**Fig. 6 - Test Circuit Diagram and Reverse Recovery Time Characteristic**



Note: 1. rise time=7nS Max. input impedance=1MΩ, 22pF  
 2. rise time=10nS Max. source impedance=80Ω