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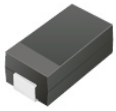
UGF15A thru UGF15J

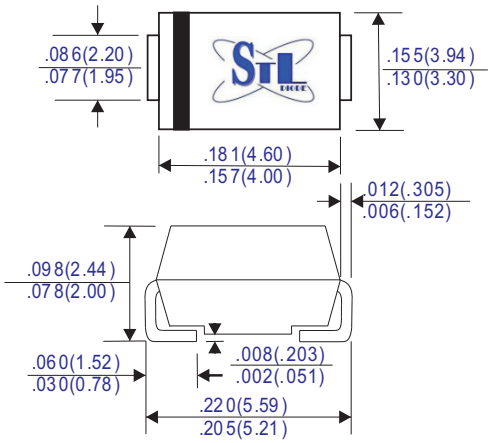
1.5A SMD Sintered Glass Passivated Junction Super Fast Recovery Rectifiers - *50V to 600V*



FEATURES

- High temperature metallurgically bonded construction
- Sintered glass cavity free junction
- Ideal for surface mount automotive applications
- For use in hgih frequency rectifier circuits
- Super fast switching for high efficiency
- High tempterature soldering 450°C/5 sec at terminals
- Lead-free parts for green partner, meet environmental standards of MIL-S-19500

SMB (DO-214AA)



Unit :inch(mm)

MECHANICAL DATA

- Case: Molded plastic SMB/DO-214AA
- Epoxy: UL94-V0 rated flame retardant
- Terminals: Solderable per MIL-STD-750 Method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Weight: 0.003 ounces, 0.093 grams

MAXIMUM RATING AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified

	Symbols	UGF 15A	UGF 15B	UGF 15D	UGF 15G	UGF 15J	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	Volts
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	Volts
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	Volts
Maximum Average Forward Rectified Current 0.375" (9.5mm) lead length at T_L=110°C, See Figure 1	$I_{F(AV)}$	1.5					A
Peak Forward Surge Current 8.3mS single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	50.0					A
Maximum Instantaneous Forward Voltage at 1.5A	V_F	0.95			1.3	1.5	Volts
Maximum DC Reverse Current T_A= 25°C at Rated DC Blocking Voltage T_A=150°C	I_R	5.0 100.0					μA
Typical Reverse Recovery Time (Note 1)	Trr	35				50	nS
Typical Junction Capacitance (Note 2)	C_J	20					pF
Typical Thermal Resistance (Note 3)	$R_{\theta JA}$	20					°C/W
Operating Junction Temperature Range	T_J	-65~+175					°C
Storage Temperature Range	T_{STG}	-65 ~ +175					°C

Note 1. Reverse reocery time test conditions: I_F-0.5A, I_R=1.0A, I_{RR}=0.25A
2. Measure at 1.0MHz and applied reverse voltage of 4.0Volts.
3. Thermal resistance from function to 0.375" (9.5mm) lead length P.C.B. mounted

Fig.1 - Forward Current Derating Curve

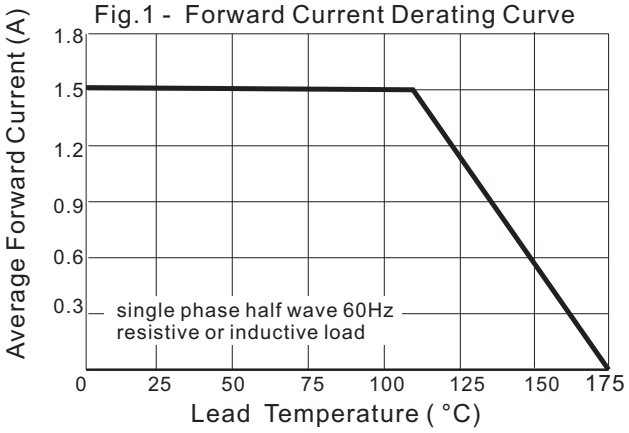


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

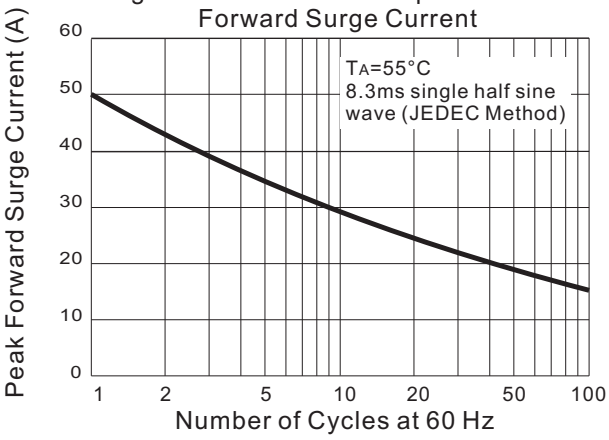


Fig. 3 - Typical Instantaneour Forward Characteristics

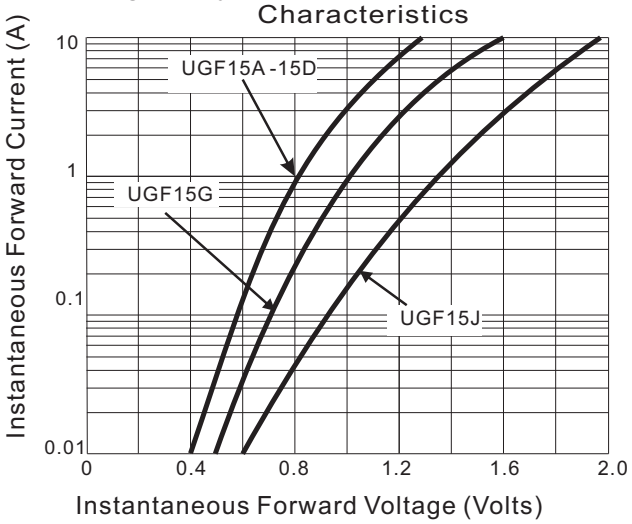


Fig. 4 - Typical Reverse Characteristics

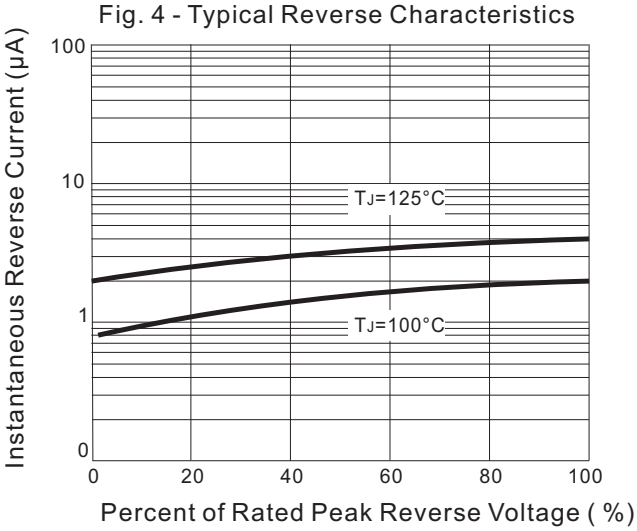


Fig. 5 - Typical Junction Capacitance

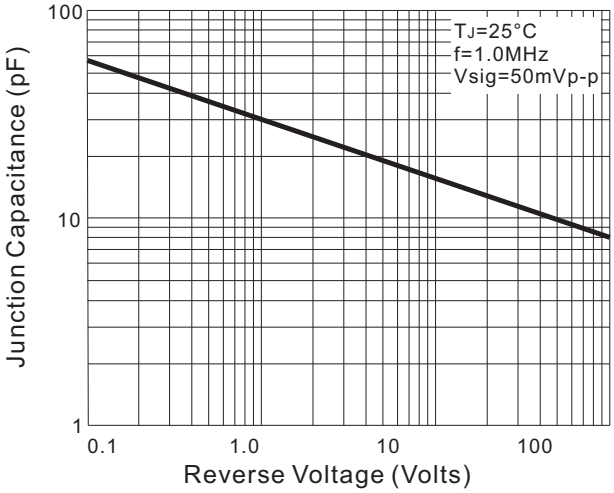
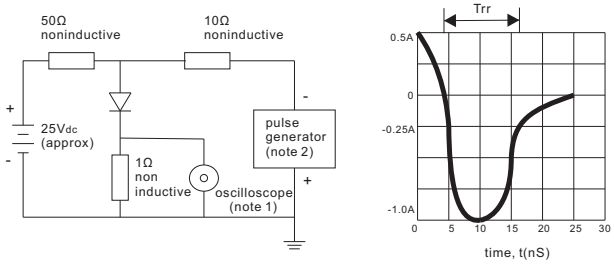


Fig. 6 - Test Circuit Diagram and Reverse Recovery Time Characteristic



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