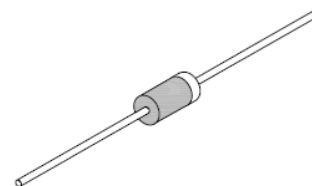


## 2.0A Sintered Glass Passivated Ultra Fast Recovery Rectifier (SGP®)

### Features

- Sintered glass passivated (SGP®) rectifier chip
- Low forward voltage, high current capability
- Low leakage current, high surge current capability
- High temperature soldering guaranteed: 260°C/10 seconds  
/.0375" (9.5mm) lead length, 5lbs (2.3kg) tension
- RoHS Compliance



DO-15  
(DO-204AC)



### Mechanical Data

<b>Case:</b>	JEDEC DO-204AC(DO-15) molded plastic body
<b>Epoxy:</b>	Plastic package has UL flammability classification 94V-0
<b>Terminals:</b>	Plated axial leads, solderable per MIL-STD-750, Method 2026
<b>Polarity:</b>	Color band denotes cathode end
<b>Weight:</b>	0.015 ounces, 0.4 gram

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

Symbol	Description	UGP 20A	UGP 20B	UGP 20D	UGP 20G	UGP 20J	UGP 20K	UGP 20M	Unit	Conditions
<b>V<sub>RRM</sub></b>	Maximum Repetitive Peak Reverse Voltage	50	100	200	400	600	800	1000	V	
<b>V<sub>RMS</sub></b>	Maximum RMS Voltage	35	70	140	280	420	560	700	V	
<b>V<sub>DC</sub></b>	Maximum DC Blocking Voltage	50	100	200	400	600	800	1000	V	
<b>I<sub>F(AV)</sub></b>	Maximum Average Forward Rectified Current	2.0							A	0.375" (9.5mm) lead length(Fig.1)
<b>I<sub>FSM</sub></b>	Peak Forward Surge Current	65				60			A	8.3ms single half sine-wave superimposed on rated load (JEDEC Method)

# 2.0A Sintered Glass Passivated Ultra Fast Recovery Rectifier (SGP<sup>®</sup>)

## UGP20A - UGP20M

Symbol	Description	UGP 20A	UGP 20B	UGP 20D	UGP 20G	UGP 20J	UGP 20K	UGP 20M	Unit	Conditions
<b>V<sub>F</sub></b>	Maximum Instantaneous Forward Voltage	1.00			1.25	1.70			V	I <sub>F</sub> =2.0 A
<b>I<sub>R</sub></b>	Maximum DC Reverse Current at Rated DC Blocking Voltage	5				5			μA	TA=25° C
		30				100				TA=125° C
		100				-				TA=150° C
<b>T<sub>rr</sub></b>	Typical Reverse Recovery Time	50				75			nS	I <sub>F</sub> =0.5A, I <sub>R</sub> =1A, I <sub>rr</sub> =0.25A
<b>C<sub>J</sub></b>	Typical Junction Capacitance	45							pF	V <sub>R</sub> =4V, f=1MHz
<b>R<sub>thJA</sub></b> <b>R<sub>thJL</sub></b>	Typical Thermal Resistance	40				15			°C / W	Note
<b>T<sub>J</sub></b>	Operating Temperature range	-65 to +175				-55 to +150			°C	
<b>T<sub>STG</sub></b>	Storage Temperature Range	-65 to +175				-55 to +150				

**Note:** Thermal resistance from junction to ambient at 0.375" (9.5mm) lead lengths, P.C.B mounted.

### Typical Characteristics Curves

Fig.1-Max. Forward Current Derating Curve

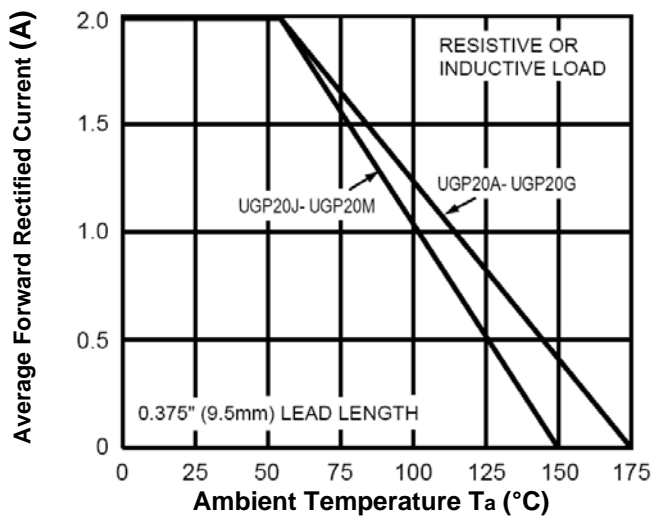
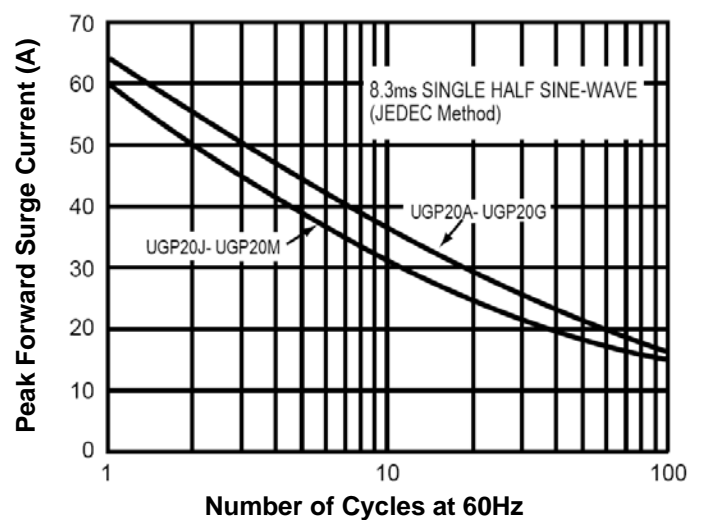


Fig.2-Max. Non-Repetitive Forward Surge Current



# 2.0A Sintered Glass Passivated Ultra Fast Recovery Rectifier (SGP<sup>®</sup>)

## UGP20A - UGP20M

Fig.3- Typical Forward Characteristics

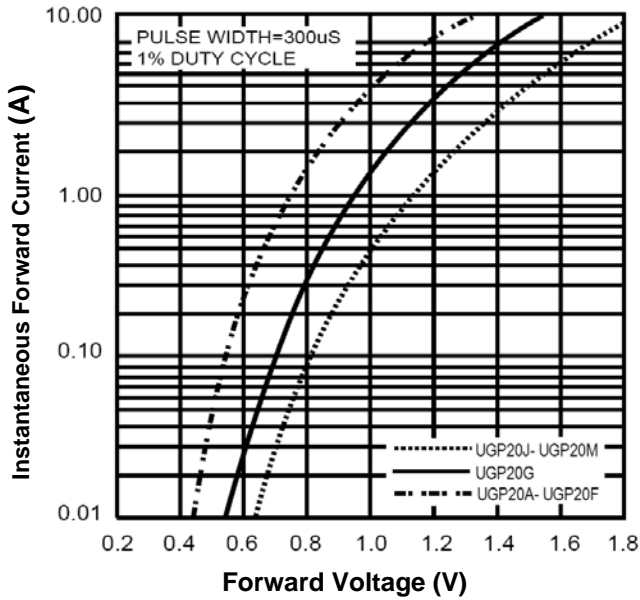


Fig.4-Typical Reverse Characteristics

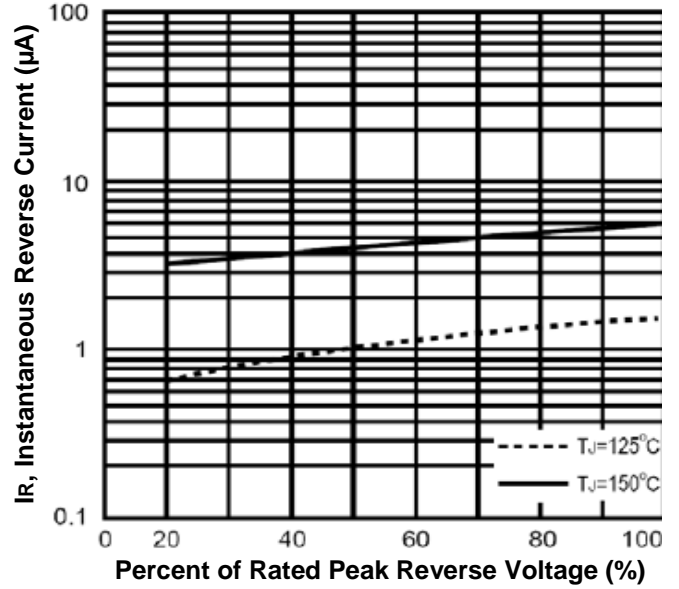
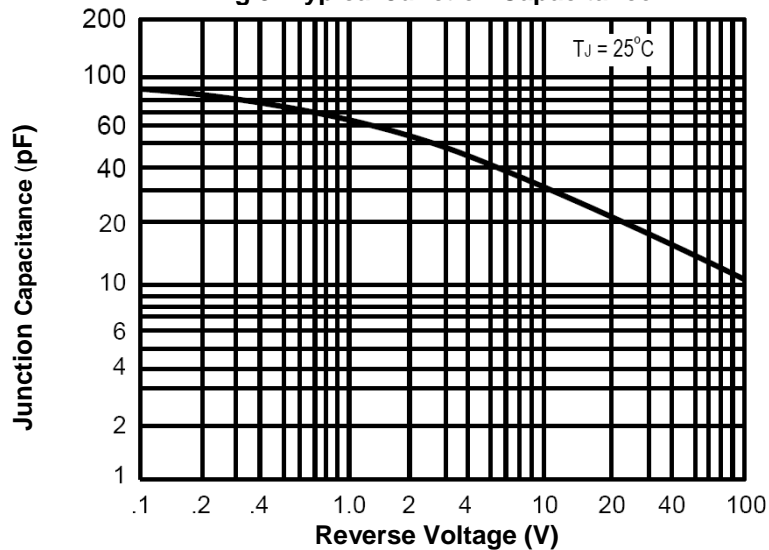


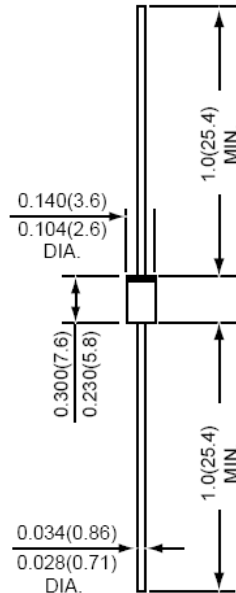
Fig.5- Typical Junction Capacitance



## 2.0A Sintered Glass Passivated Ultra Fast Recovery Rectifier (SGP<sup>®</sup>)

UGP20A - UGP20M

Dimensions in inches (mm)



**DO-15**  
**(DO-204AC)**

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