

**Micro Commercial Components** 



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# **GS1AFL THRU GS1MFL**

### **Features**

- Halogen free available upon request by adding suffix "-HF" Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Extremely Low Thermal Resistance
- High Temp Soldering: 260 °C for 10 Seconds At Terminals
- Lead Free Finish/Rohs Compliant (Note1) ("P"Suffix designates Compliant. See ordering information)

### **Maximum Ratings**

- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C
- Maximum Thermal Resistance; 13°C/W Junction To Lead

MCC	Device	Maximum	Maximum	Maximum
Catalog	Marking	Reccurrent	RMS	DC
Number		Peak Reverse	Voltage	Blocking
		Voltage		Voltage
GS1AFL	GS1A	50V	35V	50V
GS1BFL	GS1B	100V	70V	100V
GS1DFL	GS1D	200V	140V	200V
GS1GFL	GS1G	400V	280V	400V
GS1JFL	GS1J	600V	420V	600V
GS1KFL	GS1K	800V	560V	800V
GS1MFL	GS1M	1000V	700V	1000V

### Electrical Characteristics @ 25°C Unless Otherwise Specified

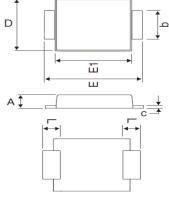
Average Forward current	I <sub>F(AV)</sub>	1.0A	T <sub>L</sub> = 110°C
Peak Forward Surge Current	I <sub>FSM</sub>	30A	8.3ms, half sine,
Maximum Instantaneous Forward Voltage	$V_{F}$	1.0V	I <sub>FM</sub> = 1.0A; T <sub>J</sub> = 25°C*
Maximum DC Reverse Current At Rated DC Blocking Voltage	I <sub>R</sub>	10μΑ 50μΑ	T <sub>J</sub> = 25°C T <sub>J</sub> = 125°C
Typical Junction Capacitance	С	15pF	Measured at 1.0MHz, V <sub>R</sub> =4.0V

<sup>\*</sup>Pulse test: Pulse width 300 µsec, Duty cycle 2%

Note 1: High Temperature Solder Exemptions Applied, see EU Directive Annex 7.

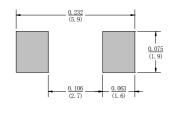
# 1.0 Amp Glass **Passivated Rectifier** 50 to 1000 Volts





DIMENSIONS						
	INCHES		ММ			
DIM	MIN	MAX	MIN	MAX	NOTE	
Α	.035	.047	0.90	1.20		
b	.049	.065	1.25	1.65		
С	.004	.016	0.10	0.40		
D	.089	.116	2.25	2.95		
E	.173	.220	4.40	5.60		
E1	.126	181	3.20	4.60		
L	.028	.059	0.70	1.50		

#### SUGGESTED SOLDER PAD LAYOUT





## GS1AFL thru GS1MFL

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Figure 1
Typical Forward Characteristics

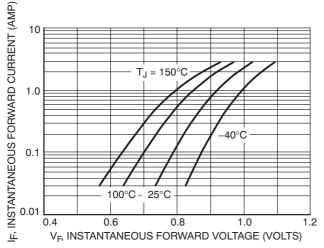
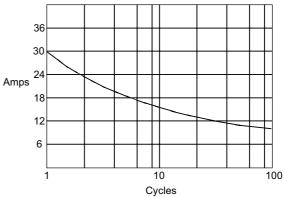
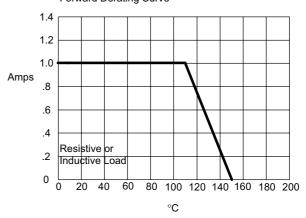


Figure 3
Maximum Overload Surge Current



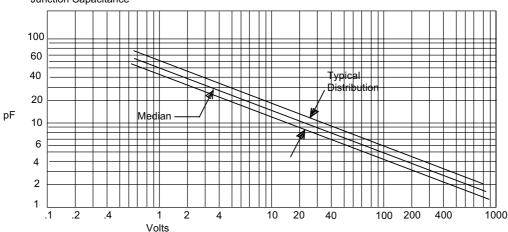
Peak Forward Current - Amperesversus Number of Cycles at 60Hz

Figure 4
Forward Derating Curve



Average Forward Rectified Current - Amperes/ersus Lead Temperature -°C

Figure 2 Junction Capacitance



Junction Capacitance - pF*versus*Reverse Junction Potential (Applied V + 0.7 Volts) - Volts



## GS1AFL thru GS1MFL

Peak Forward Surge Current - Amperesversus Pulse Duration - Milliseconds (mS)



### Ordering Information:

Device	Packing	
Part Number-TP	Tape&Reel: 10Kpcs/Reel	

Note: Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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