

#### **Features**

- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix Designates Compliant. See Ordering Information)
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1
- Halogen Free Available Upon Request By Adding Suffix "-HF"

# **Maximum Ratings**

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Typical Thermal Resistance: 20°C/W Junction to Lead
- Typical Thermal Resistance: 70°C/W Junction to Ambient

MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
UG1APL	UG1A	50V	35V	50V
UG1BPL	UG1B	100V	70V	100V
UG1CPL	UG1C	150V	105V	150V
UG1DPL	UG1D	200V	140V	200V
UG1FPL	UG1F	300V	210V	300V
UG1GPL	UG1G	400V	280V	400V
UG1JPL	UG1J	600V	420V	600V

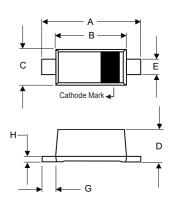
## Electrical Characteristics @ 25°C Unless Otherwise Specified

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 UG1APL-UG1DPL UG1FPL-UG1GPL UG1JPL	V <sub>F</sub>	0.92V 1.25V 1.70V	I <sub>FM</sub> =1.0A;
Maximum DC Reverse Current At Rated DC Blocking Voltage	I <sub>R</sub>	5.0μA 50μA	T <sub>J</sub> =25°C; T <sub>J</sub> =100°C
Maximum Reverse Recovery Time UG1APL-UG1GPL UG1JPL	t <sub>rr</sub>	25ns 35ns	I <sub>F</sub> =0.5A; I <sub>R</sub> =1.0A; Irr=0.25A

Note: 1. High Temperature Solder Exemption Applied, See EU Directive Annex Notes 7a.

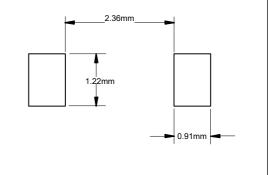
# 1 Amp Super Fast Recovery Rectifier 50 to 600 Volts

# SOD-123FL



DIMENSIONS							
DIM	INCHES		MM		NOTE		
DIIVI	MIN	MAX	MIN	MAX	NOTE		
Α	0.130	0.152	3.30	3.85			
В	0.100	0.122	2.55	3.10			
С	0.055	0.075	1.40	1.90			
D	0.035	0.053	0.90	1.35			
E	0.020	0.041	0.50	1.05			
G	0.010		0.25				
Н		0.010		0.25			

#### Suggested Solder Pad Layout





# **Curve Characteristics**

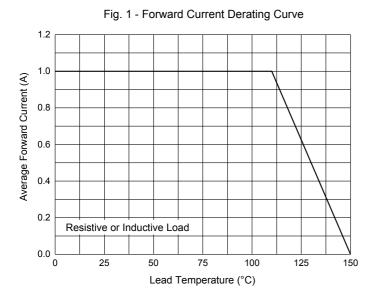


Fig. 3 - Typical Instantaneous Forward Characteristics

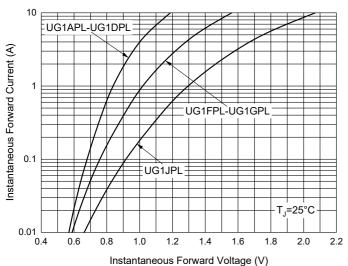


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge
Current

35

20

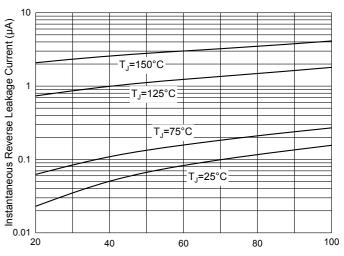
20

20

10

8.3 ms Single Half Sine-Wave
0
1
10
Number of Cycles at 60 Hz

Fig. 4 - Typical Reverse Leakage Characteristics



Percent of Rated Peak Reverse Voltage (%)



# **Ordering Information**

Device	Packing	
Part Number-TP	Tape&Reel: 2.5Kpcs/Reel	

Note: Adding "-HF" Suffix For Halogen Free, eg. Part Number-TP-HF

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