

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
- Glass Passivated Chip Junction
- Low Profile Package
- Halogen Free. "Green" Device (Note 2)
- AEC-Q101 Qualified

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 Case(Note 3)
- Typical Thermal Resistance: 25°C/W Junction to Lead(Note 3)
- Typical Thermal Resistance: 65°C/W Junction to Ambient(Note 3)

MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
UG1DPLQ	UG1D	200V	140V	200V

Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Rectified Forward Current	$I_{F(AV)}$	1A	$T_L=110^\circ\text{C}$
Peak Forward Surge Current	I_{FSM}	30A	8.3ms, Half Sine
Instantaneous Forward Voltage	V_F	0.92V(Max.)	$I_F=1\text{A}; T_J=25^\circ\text{C}$
Reverse Current At Rated DC Blocking Voltage	I_R	2uA(Max.) 20uA(Max.)	$T_J=25^\circ\text{C};$ $T_J=125^\circ\text{C}$
Typical Junction Capacitance	C_J	15pF	Measured at 1.0MHz, $V_R=4.0\text{V}$
Reverse Recovery Time	t_{rr}	25ns(Max.)	$I_F=0.5\text{A}; I_R=1.0\text{A}; I_{RR}=0.25\text{A}$
		25ns(Typ.)	$I_F=1\text{A}; di/dt=-50\text{A/us}; V_R=30\text{V}$
		18ns(Typ.)	$T_J=25^\circ\text{C}$
		24ns(Typ.)	$T_J=125^\circ\text{C}$
Peak recovery current	I_{RRM}	2.4A(Typ.) 4.0A(Typ.)	$T_J=25^\circ\text{C}$ $T_J=125^\circ\text{C}$
Reverse recovery charge	Q_{rr}	20nC(Typ.) 45nC(Typ.)	$T_J=25^\circ\text{C}$ $T_J=125^\circ\text{C}$

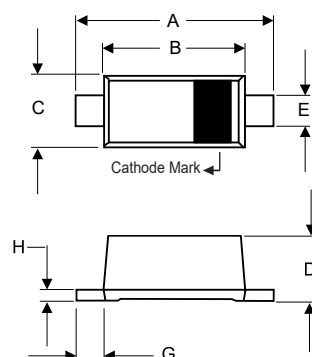
Note :1. High Temperature Solder Exemption Applied, See EU Directive Annex Notes 7a.

2. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

3. Mounted on P.C.B With 3mm*3mm Copper Pad Areas.

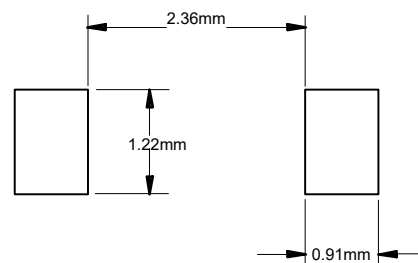
1 Amp Surface Mount Ultra Fast Recovery Rectifier 200 Volts

SOD-123FL



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.130	0.152	3.30	3.85	
B	0.100	0.122	2.55	3.10	
C	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	----	
H	----	0.010	----	0.25	

Suggested Solder Pad Layout



Curve Characteristics

Fig. 1 - Forward Current Derating Curve

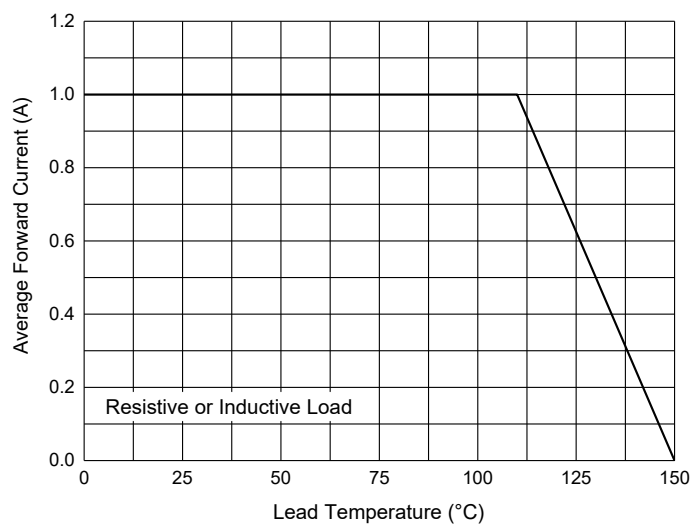


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

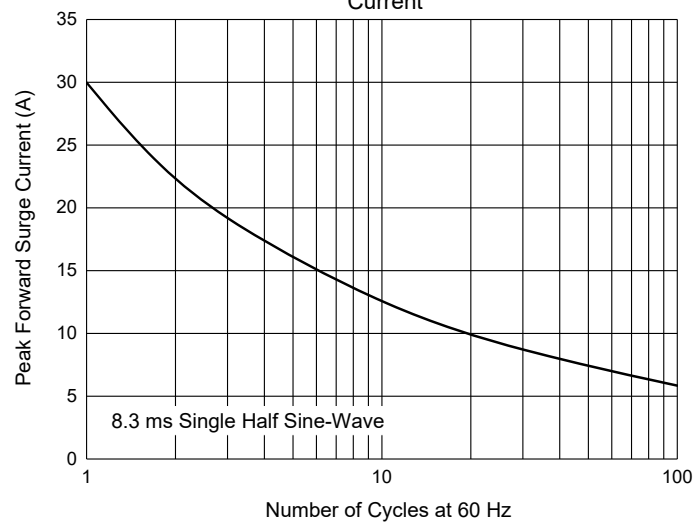


Fig. 3 - Typical Instantaneous Forward Characteristics

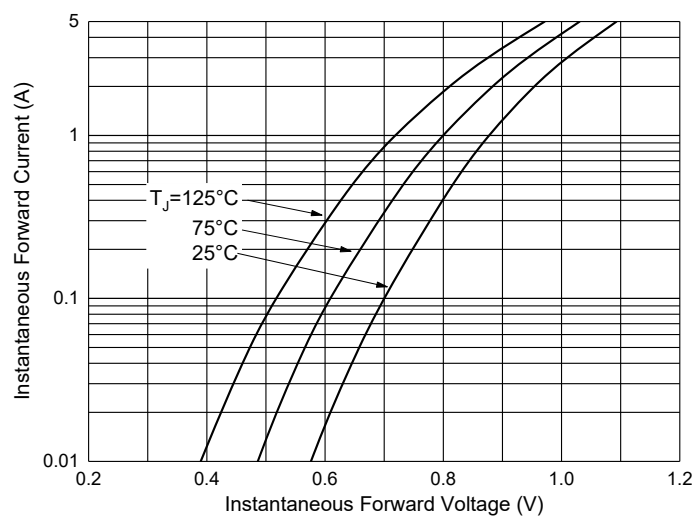
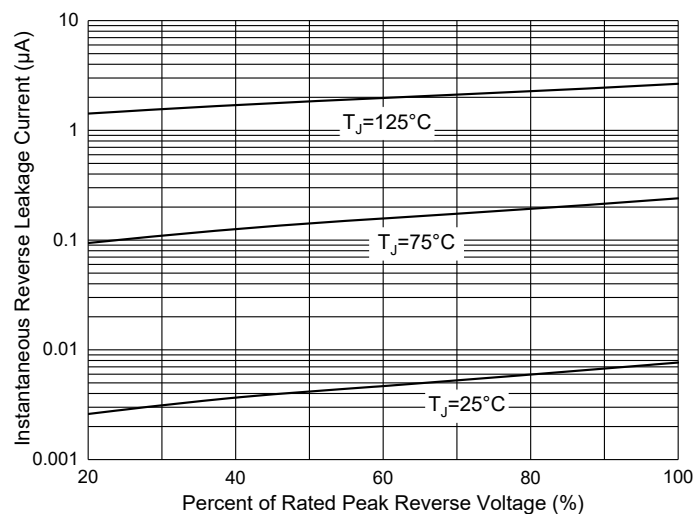


Fig. 4 - Typical Reverse Leakage Characteristics



Ordering Information

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

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