

## **Features**

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

# 1 Amp Ultra Fast Rectifier 1000 Volts

# **Maximum Ratings**

• Operating Junction Temperature Range: -55°C to +150°C

• Storage Temperature Range: -55°C to +150°C

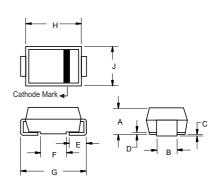
• Maximum Thermal Resistance: 25°C/W Junction to Lead

MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
US1ML	US1ML	1000V	700V	1000V

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 <sub>F</sub>	1.5V	I <sub>FM</sub> =1.0A; T <sub>A</sub> =25°C
Maximum DC Reverse Current at Rated DC Blocking Voltage	I <sub>R</sub>	5.0μA 100μA	T <sub>A</sub> =25°C; T <sub>A</sub> =100°C
Maximum Reverse Recovery Time	t <sub>rr</sub>	120ns	I <sub>F</sub> =0.5A; I <sub>R</sub> =1.0A; Irr=0.25A
Typical Junction Capacitance	С	8pF	Measured at 1.0MHz; V <sub>R</sub> =4.0V

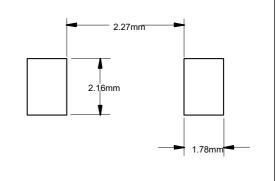
Notes: 1. High Temperature Solder Exemption Applied, See EU Directive Annex Notes 7a.

# SMA (DO-214AC)



DIMENSIONS							
DIM	INCHES		MM		NOTE		
Dilvi	MIN	MAX	MIN	MAX	NOTE		
Α	0.079	0.096	2.00	2.44			
В	0.050	0.064	1.27	1.63			
С	0.002	0.008	0.051	0.203			
D		0.020		0.51			
Е	0.030	0.060	0.76	1.52			
F	0.065	0.091	1.65	2.32			
G	0.189	0.220	4.80	5.59			
Н	0.157	0.181	4.00	4.60			
J	0.090	0.115	2.25	2.92			

#### SUGGESTED SOLDER PAD LAYOUT





# **Curve Characteristics**

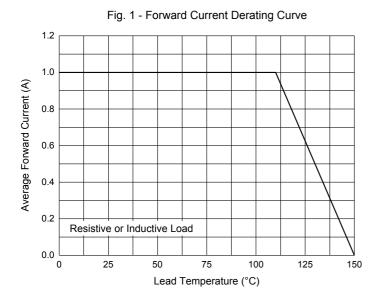


Fig. 3 - Typical Instantaneous Forward Characteristics

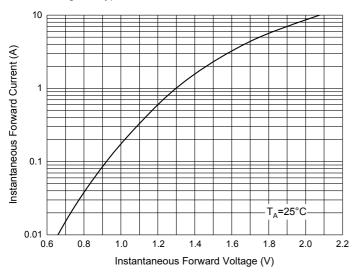


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge

Current

35

20

20

20

10

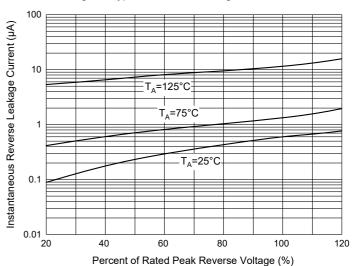
8.3 ms Single Half Sine-Wave

0

1 10 100

Number of Cycles at 60 Hz

Fig. 4 - Typical Reverse Leakage Characteristics





# **Ordering Information**

Device	Packing	
Part Number-TP	Tape&Reel: 5Kpcs/Reel	

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

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