

**Features**

- Halogen Free. "Green" Device (Note 1)
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1
- Extremely Low Thermal Resistance
- Lead Free Finish/RoHS Compliant (Note2) ("P" Suffix Designates Compliant. See Ordering Information)

**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

MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
S1YA	S1YA	1600V	1120V	1600V

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

Average Forward Current	$I_{F(AV)}$	1.0A	$T_L=125^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	30A	8.3ms, Half Sine
Maximum Instantaneous Forward Voltage	$V_F$	1.25V(max) 1.10V(typ)	$I_{FM}=1.0A$ ; $T_J=25^\circ\text{C}^*$
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	5.0µA 100µA	$T_J=25^\circ\text{C}$ ; $T_J=125^\circ\text{C}$
Typical Reverse Recovery Time	$t_{rr}$	2.0µs	$I_F=0.5A$ ; $I_R=1.0A$ ; $I_{rr}=0.25A$

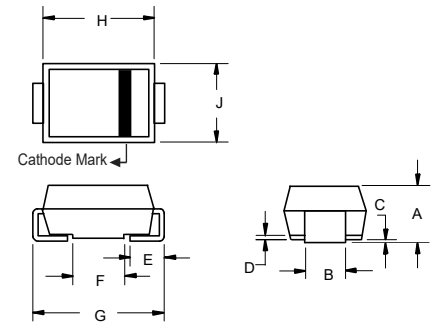
\*Pulse Test: Pulse Width 300 µsec, Duty Cycle 2%

Note :

1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
2. High Temperature Solder Exemption Applied, See EU Directive Annex 7a.

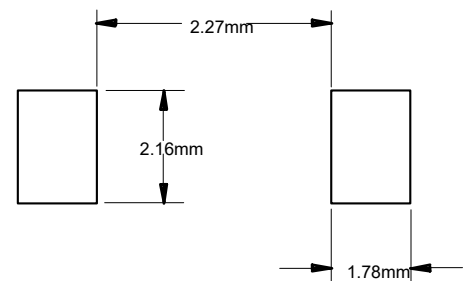
**1.0 Amp Glass Passivated Rectifier  
1600 Volts**

**SMA (DO-214AC)**



DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	0.075	0.096	1.90	2.44	
B	0.050	0.064	1.27	1.63	
C	0.002	0.008	0.051	0.203	
D	---	0.020	---	0.51	
E	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	
H	0.157	0.187	4.00	4.75	
J	0.090	0.115	2.25	2.92	

**SUGGESTED SOLDER PAD LAYOUT**



## Curve Characteristics

Fig. 1 - Forward Current Derating Curve

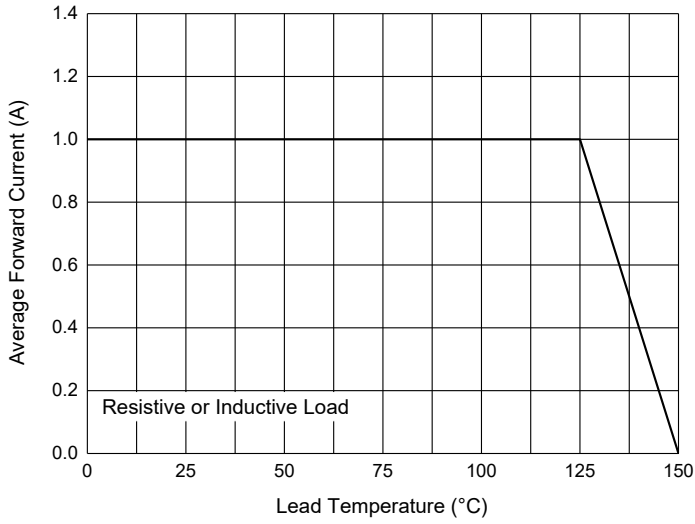


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

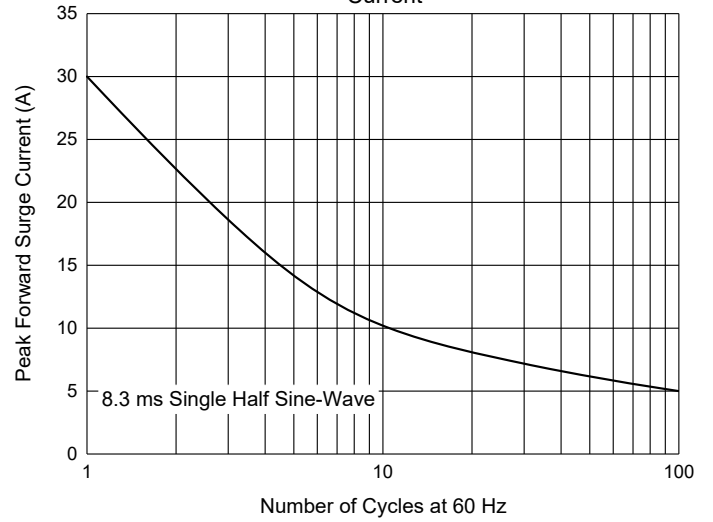


Fig. 3 - Typical Reverse Leakage Characteristics

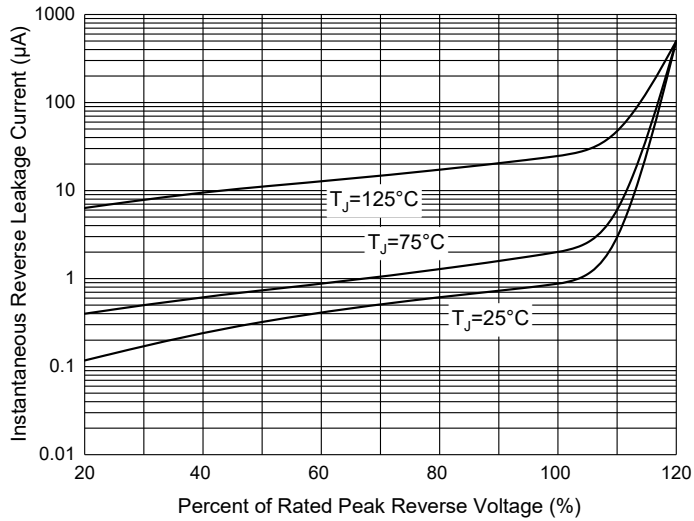
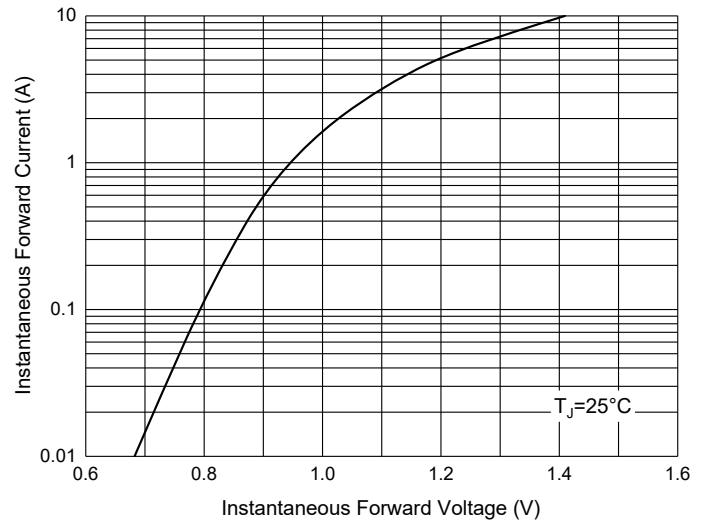


Fig. 4 - Typical Instantaneous Forward Characteristics



## Ordering Information

Device	Packing
S1YA-TP	Tape&Reel: 7.5Kpcs/Reel

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