



# THE DATASHEET OF S10AL-TP



**Features**

- Lead Free Finish/RoHS Compliant (Note1) ("P" Suffix Designates Compliant. See Ordering Information)
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1
- Halogen Free. "Green" Device (Note 2)

**Maximum Ratings**

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Typical Thermal Resistance: 17°C/W Junction to Case
- Typical Thermal Resistance: 47°C/W Junction to Ambient
- Typical Thermal Resistance: 13°C/W Junction to Lead

MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
S10AL	S10AL	50V	35V	50V
S10BL	S10BL	100V	70V	100V
S10DL	S10DL	200V	140V	200V
S10GL	S10GL	400V	280V	400V
S10JL	S10JL	600V	420V	600V
S10KL	S10KL	800V	560V	800V
S10ML	S10ML	1000V	700V	1000V

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

Average Forward Current	$I_{F(AV)}$	10.0A	$T_C=75^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	200A	8.3ms, Half Sine
$I^2t$ Rating for fusing	$I^2t$	166A <sup>2</sup> S	( $t < 8.3\text{ms}$ )
Maximum Instantaneous Forward Voltage	$V_F$	1.20V	$I_{FM}=10\text{A}; T_J=25^\circ\text{C}^*$
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	10 $\mu\text{A}$	$T_J=25^\circ\text{C}$

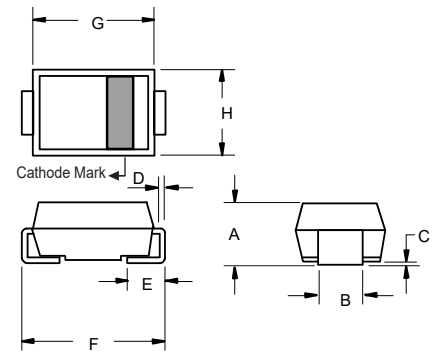
\*Pulse Test: Pulse Width 200  $\mu\text{sec}$ , Duty Cycle 2%

Note:

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

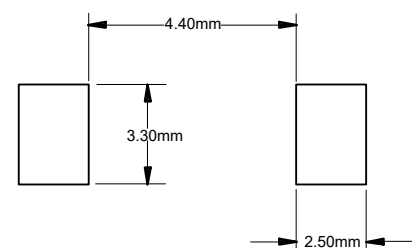
**10 Amp Glass Passivated Rectifier  
50 to 1000 Volts**

**SMC (DO-214AB)**



DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	0.079	0.103	2.00	2.62	
B	0.108	0.128	2.75	3.25	
C	0.002	0.008	0.051	0.203	
D	0.006	0.012	0.152	0.305	
E	0.030	0.060	0.76	1.52	
F	0.305	0.320	7.75	8.13	
G	0.260	0.280	6.60	7.11	
H	0.220	0.245	5.59	6.22	

**Suggested Solder Pad Layout**



**Curve Characteristics**

Fig. 1 - Forward Current Derating Curve

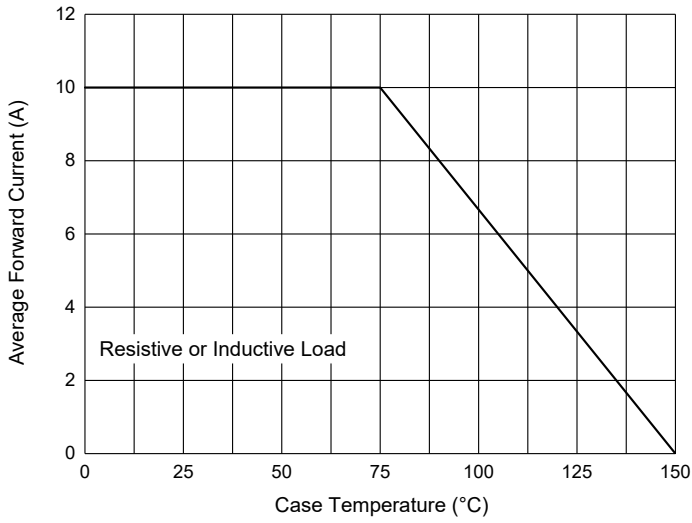


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

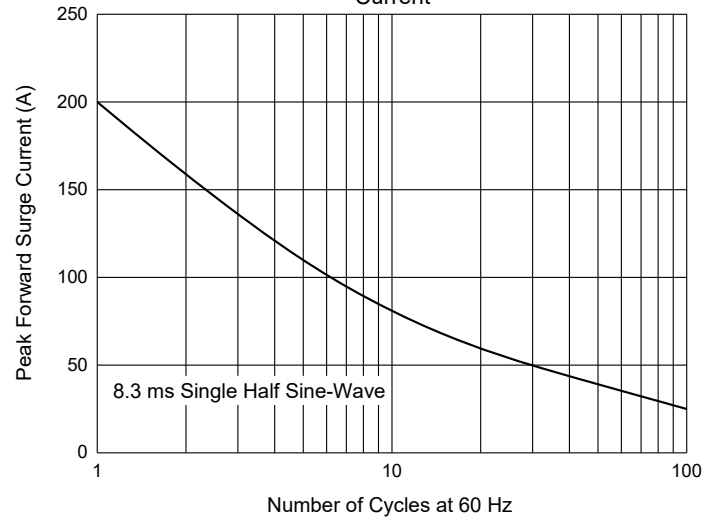


Fig. 3 - Typical Instantaneous Forward Characteristics

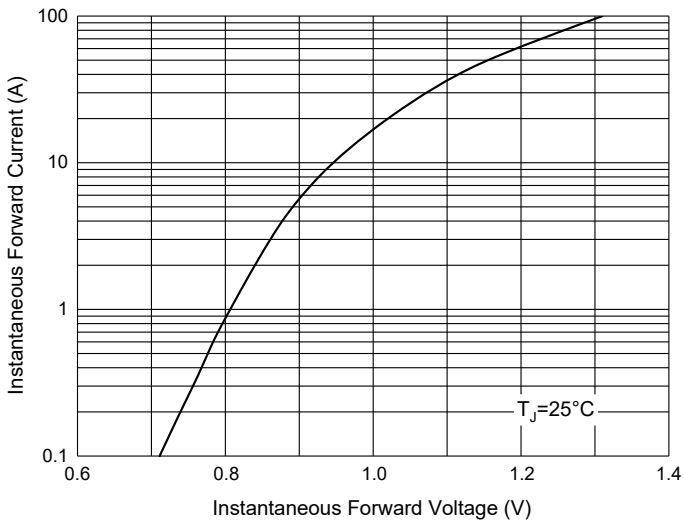
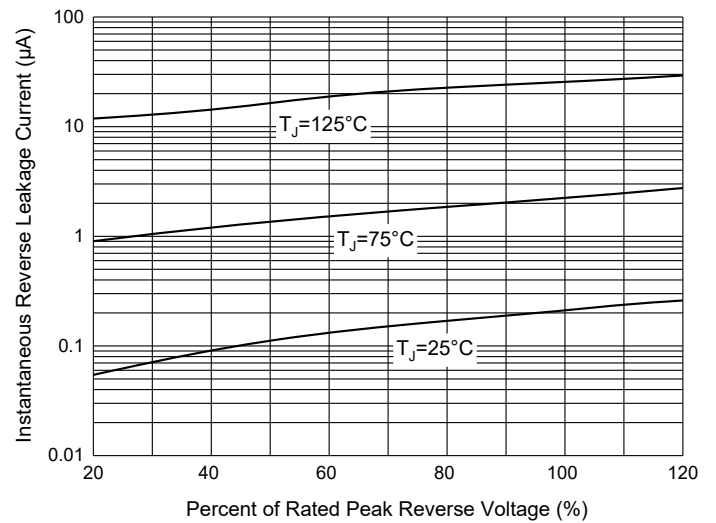


Fig. 4 - Typical Reverse Leakage Characteristics



## Ordering Information

Device	Packing
Part Number-TP	Tape&Reel: 3Kpcs/Reel

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