

#### **Features**

- Halogen Free. "Green" Device (Note 1)
- AEC-Q101 Qualified
- Lead Free Finish/RoHS Compliant(Note 2) ("P" Suffix Designates Compliant. See Ordering Information)
- Low Forward Voltage and High Current Capability
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1

### Maximum Ratings

- Operating Junction Temperature Range: -55°C to +125°C(SS12-L~SS14-L)
- Operating Junction Temperature Range: -55°C to +150°C(SS15-L~SS110-L)
- Storage Temperature Range: -55°C to +150°C
- Maximum Thermal Resistance: 28°C/W Junction to Lead
- Maximum Thermal Resistance: 55°C/W Junction to Case
- Maximum Thermal Resistance: 88°C/W Junction to Ambient

MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
SS12HE3-L	SS12	20V	14V	20V
SS13HE3-L	SS13	30V	21V	30V
SS14HE3-L	SS14	40V	28V	40V
SS15HE3-L	SS15	50V	35V	50V
SS16HE3-L	SS16	60V	42V	60V
SS18HE3-L	SS18	80V	56V	80V
SS110HE3-L	SS110	100V	70V	100V

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

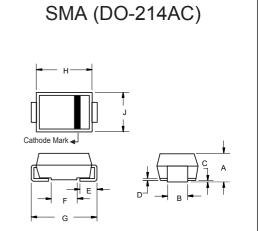
Average Forward Current	$I_{F(AV)}$	1.0A	Fig.1
Peak Forward Surge Current	I <sub>FSM</sub>	50A	8.3ms,Half Sine
Maximum Instantaneous Forward Voltage SS12HE3-L~SS14HE3-L SS15HE3-L~SS16HE3-L SS18HE3-L~SS110HE3-L		0.50V 0.70V 0.85V	I <sub>FM</sub> =1.0A; T <sub>J</sub> =25⁰C*
Maximum DC Reverse Current At Rated DC Blocking Voltage SS12HE3-L~SS16HE3-L SS18HE3-L~SS16HE3-L SS12HE3-L~SS16HE3-L SS18HE3-L~SS110HE3-L	I <sub>R</sub>	0.1mA 0.05mA 10mA 5mA	T」=25°C T」=25°C T」=100°C T」=100°C
Typical Junction Capacitance SS12HE3-L~SS14HE3-L SS15HE3-L~SS16HE3-L SS18HE3-L~SS110HE3-L	CJ	52pF 45pF 35pF	Measured at 1.0MHz, V <sub>R</sub> =4.0V

\*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.

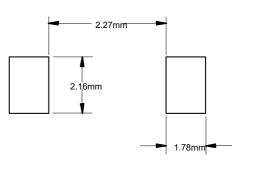
#### Rev.3-4-08042021

# 1 Amp **Schottky Rectifier** 20 to 100 Volts



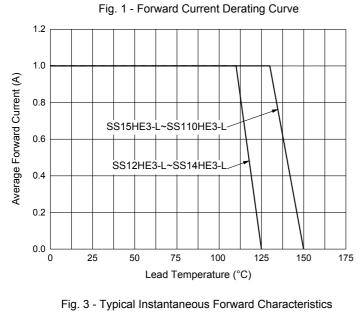
DIMENSIONS						
DIM	INCHES		MM		NOTE	
	MIN	MAX	MIN	MAX	NOTE	
А	0.075	0.096	1.90	2.44		
В	0.050	0.064	1.27	1.63		
С	0.002	0.008	0.051	0.203		
D		0.020		0.51		
Е	0.030	0.060	0.76	1.52		
F	0.065	0.091	1.65	2.32		
G	0.189	0.220	4.80	5.59		
Н	0.157	0.187	4.00	4.75		
J	0.090	0.115	2.25	2.92		

#### SUGGESTED SOLDER PAD LAYOUT





## **Curve Characteristics**



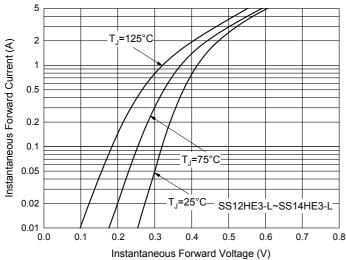
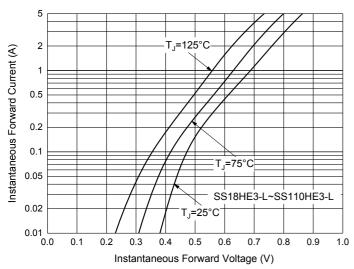
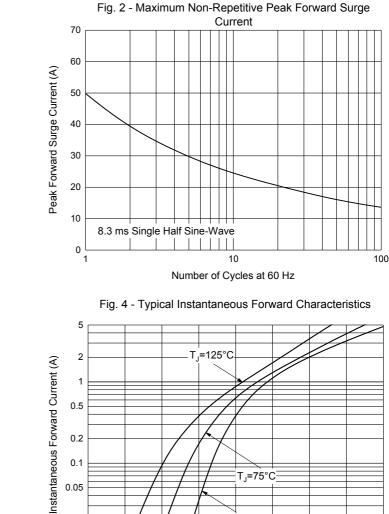


Fig. 5 - Typical Instantaneous Forward Characteristics





Instantaneous Forward Voltage (V) Fig. 6 - Typical Reverse Leakage Characteristics

0.4

T<sub>.I</sub>=75°C

0.5

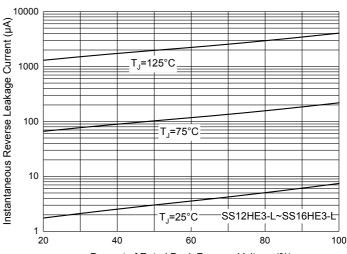
SS15HE3-L~SS16HE3-L

0.7

0.8

0.6

25°C-



Percent of Rated Peak Reverse Voltage (%)

0.1

0.05

0.02

0.01

0.0

0.1

0.2

0.3



# **Curve Characteristics**

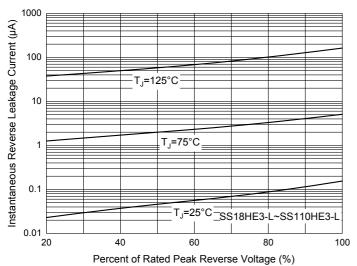


Fig. 7 - Typical Reverse Leakage Characteristics



Device	Packing	
SS12HE3-LTP ~ SS110HE3-LTP	Tape&Reel: 5Kpcs/Reel	

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