

# **Features**

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

# Maximum Ratings @ 25°C (Unless Otherwise Specified)

		Val		
Parameter	Symbol	SS110Q-L	SS120Q-L	Unit
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>			
Working Peak Reverse Voltage	V <sub>RWM</sub>	100	200	V
DC Blocking Voltage	V <sub>R</sub>			
RMS Reverse Voltage	V <sub>RMS</sub>	70	140	V
Average Rectified Forward Current @ T <sub>L</sub> =145°C	I <sub>F(AV)</sub>	,	1	А
Non-Repetitive Peak Surge Current @8.3ms Half Sine Wave	I <sub>FSM</sub>	40		А
Current Squared Time @ 1ms≤t≤8.3ms	l²t	6.64		A <sup>2</sup> s

# Marking code

Part Number	Marking Code
SS110Q-L	SS110
SS120Q-L	SS120

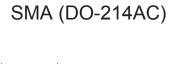
# **Internal Structure**

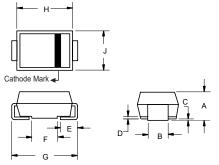
Pin	Description	Simplified Outline	Graphic Symbol
1	cathode	MCC XXXX 2	
2	anode	XXXX = Marking code YYYWW = Date Code	1 0——— 0 2

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.

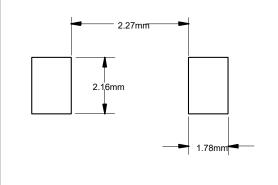
# 1 Amp Surface Mount Schottky Rectifier 100 to 200 Volts





DIMENSIONS						
DIM	INCHES		MM		NOTE	
DIIVI	MIN	MAX	MIN	MAX	NOTE	
Α	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		
Ш	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		
Η	0.157	0.187	4.00	4.75		
J	0.090	0.115	2.25	2.92		

# SUGGESTED SOLDER PAD LAYOUT





# Thermal characteristics

Symbol	Parameter	Conditions	Min	Тур	Max	Unit
$T_J$	Operating Junction Temperature Range		-55		175	°C
T <sub>stg</sub>	Storage Temperature Range		-55		175	°C
Rth <sub>(J-L)</sub>	Thermal Resistance from Junction to Lead	Note 1		30		°C/W
Rth <sub>(J-A)</sub>	Thermal Resistance from Junction to Ambient	Note 1		75		°C/W

## Note:

# Electrical Characteristics @ 25°C Unless Otherwise Specified

Parameter	Symbol	Test Conditions	Min	Тур	Max	Unit
Forward Voltage						
SS110Q-L	V <sub>F</sub>	I <sub>F</sub> =1A;T <sub>J</sub> =25°C		0.73	0.77	
		I <sub>F</sub> =1A;T <sub>J</sub> =125°C		0.58	0.68	V
SS120Q-L		$I_F=1A;T_J=25$ °C		0.79	0.90	
		I <sub>F</sub> =1A;T <sub>J</sub> =125°C		0.65	0.78	
Reverse Current						
SS110Q-L	I <sub>R</sub>	at Rated V <sub>R</sub> ;T <sub>J</sub> =25°C			1	
		at Rated V <sub>R</sub> ;T <sub>J</sub> =125°C			500	uA
SS120Q-L		at Rated V <sub>R</sub> ;T <sub>J</sub> =25°C			1	uA
		at Rated V <sub>R</sub> ;T <sub>J</sub> =125°C			500	
Junction Capacitance						
SS110Q-L	CJ	$V_R$ =4V;f=1MHz; $T_J$ =25°C		50		pF
SS120Q-L				35		

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<sup>1.</sup>Mounted on P.C.B. with 0.2" x 0.2" (5.0 mm x 5.0 mm) copper.



# **Curve Characteristics**

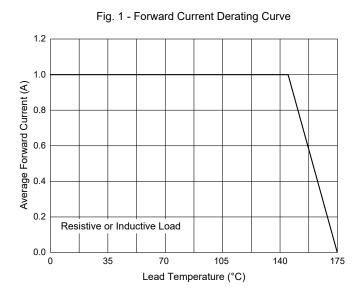


Fig. 3 - Typical Forward Characteristics

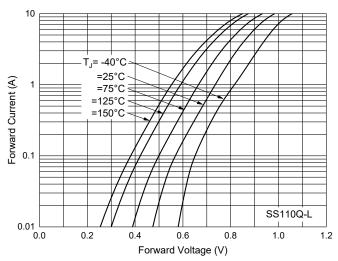


Fig. 5 - Typical Forward Characteristics

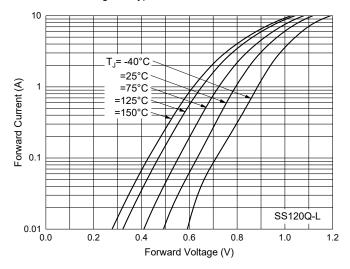


Fig. 2 - Maximum Non-Repetitive Peak Forward

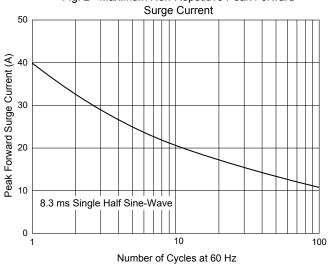


Fig. 4 - Typical Reverse Leakage Characteristics

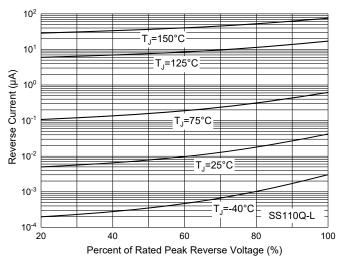
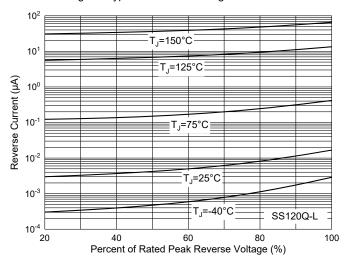


Fig. 6 - Typical Reverse Leakage Characteristics





# **Curve Characteristics**

Fig. 7 - Capacitance Characteristics

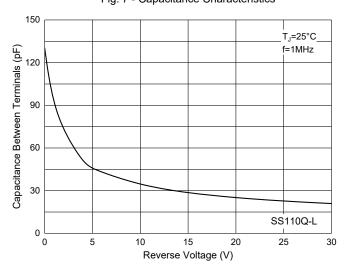
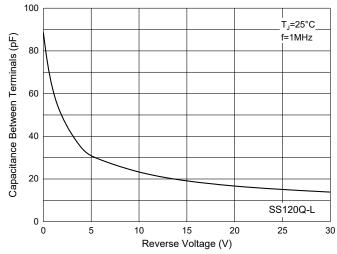


Fig. 8 - Capacitance Characteristics





# **Ordering Information**

Device	Packing		
SS110Q-LTP ~ SS120Q-LTP	Tape&Reel:5Kpcs/Reel		

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