

### **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)

# 2 Amp Surface Mount Schottky Rectifier 40 to 60 Volts

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

		Val		
Parameter	Symbol	SS24Q-L	SS26Q-L	Unit
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>			
Working Peak Reverse Voltage	V <sub>RWM</sub>	40	60	V
DC Blocking Voltage	V <sub>R</sub>			
RMS Reverse Voltage	V <sub>RMS</sub>	28	42	V
Average Rectified Forward Current @ T <sub>L</sub> =115°C	I <sub>F(AV)</sub>	2		А
Non-Repetitive Peak Surge Current @8.3ms Half Sine Wave	I <sub>FSM</sub>	75		А
Current Squared Time @ 1ms≤t≤8.3ms	l²t	23.34		A <sup>2</sup> s

# Marking code

Part Number	Marking code
SS24Q-L	SS24
SS26Q-L	SS26

### **Internal Structure**

Pin	Description	Simplified outline	Graphic symbol
1	cathode	MCC XXXX 2	
2	anode	XXXX = Marking code YYWW = Date Code	1 0

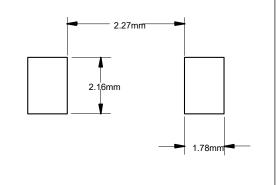
Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

2. High Temperature Solder Exemption Applied, see EU Directive Annex 7a.

# SMA (DO-214AC)

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		
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





# Thermal characteristics

Symbol	Parameter	Conditions	Min	Тур	Max	Unit
TJ	Operating Junction Temperature Range		-55		150	°C
T <sub>stg</sub>	Storage Temperature Range		-55		150	°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							
	SS24Q-L	V <sub>F</sub>	$I_F=2A;T_J=25^{\circ}C$		0.50	0.55	
			$I_F=2A;T_J=125$ °C		0.42	0.45	V
	SS26Q-L		$I_F=2A;T_J=25$ °C		0.58	0.70	
			$I_F=2A;T_J=125^{\circ}C$		0.53	0.63	
Reverse Current							
	SS24Q-L	I <sub>R</sub>	at Rated V <sub>R</sub> ;T <sub>J</sub> =25°C			0.1	mA
			at Rated V <sub>R</sub> ;T <sub>J</sub> =125°C			10	
	SS26Q-L		at Rated V <sub>R</sub> ;T <sub>J</sub> =25°C			0.1	
			at Rated V <sub>R</sub> ;T <sub>J</sub> =125°C			10	
Junction Capacitance							
	SS24Q-L SS26Q-L	CJ	$V_R=4V;f=1MHz;T_J=25^{\circ}C$		115 95		pF

Rev.4-1-03202023 2/5 MCCSEMI.COM

<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. 1 - Forward Current Derating Curve 2.4 2.0 Average Forward Current (A) 1.6 1.2 0.8 0.4 Resistive or Inductive Load 0.0 0 25 75 100 50 125 150 Lead Temperature (°C)

Fig. 3 - Typical Forward Characteristics

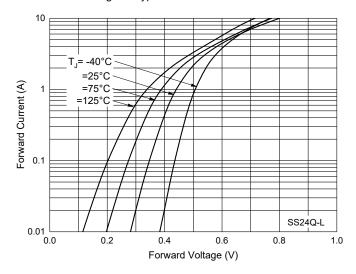


Fig. 5 - Typical Forward Characteristics

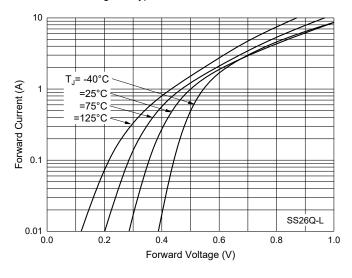


Fig. 2 - Maximum Non-Repetitive Peak Forward
Surge Current

(V)

8.3 ms Single Half Sine-Wave

1 10 100

Number of Cycles at 60 Hz

Fig. 4 - Typical Reverse Leakage Characteristics

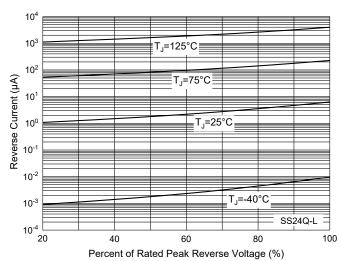
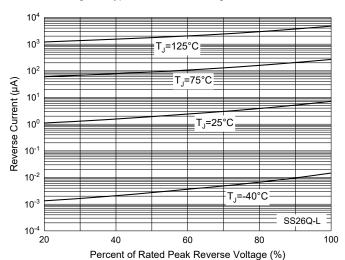
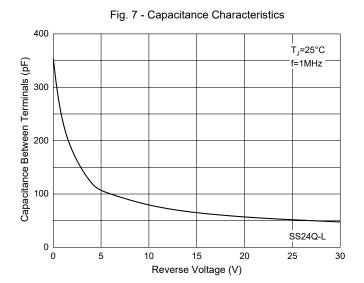


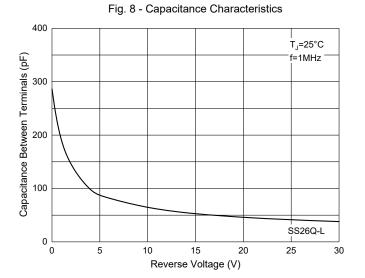
Fig. 6 - Typical Reverse Leakage Characteristics





# **Curve Characteristics**





Rev.4-1-03202023 4/5 MCCSEMI.COM



### **Ordering Information**

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

### \*\*\*IMPORTANT NOTICE\*\*\*

**Micro Commercial Components Corp**. reserves the right to make changes without further notice to any product herein to make corrections, modifications, enhancements, improvements, or other changes. **Micro Commercial Components Corp**. does not assume any liability arising out of the application or use of any product described herein; neither does it convey any license under its patent rights, nor the rights of others. The user of products in such applications shall assume all risks of such use and will agree to hold **Micro Commercial Components Corp**, and all the companies whose products are represented on our website, harmless against all damages. **Micro Commercial Components Corp**, products are sold subject to the general terms and conditions of commercial sale, as published at

https://www.mccsemi.com/Home/TermsAndConditions.

### \*\*\*LIFE SUPPORT\*\*\*

MCC's products are not authorized for use as critical components in life support devices or systems without the express written approval of Micro Commercial Components Corporation.

### \*\*\*CUSTOMER AWARENESS\*\*\*

Counterfeiting of semiconductor parts is a growing problem in the industry. Micro Commercial Components (MCC) is taking strong measures to protect ourselves and our customers from the proliferation of counterfeit parts. MCC strongly encourages customers to purchase MCC parts either directly from MCC or from Authorized MCC Distributors who are listed by country on our web page cited below. Products customers buy either from MCC directly or from Authorized MCC Distributors are genuine parts, have full traceability, meet MCC's quality standards for handling and storage. MCC will not provide any warranty coverage or other assistance for parts bought from Unauthorized Sources. MCC is committed to combat this global problem and encourage our customers to do their part in stopping this practice by buying direct or from authorized distributors.