

## Features

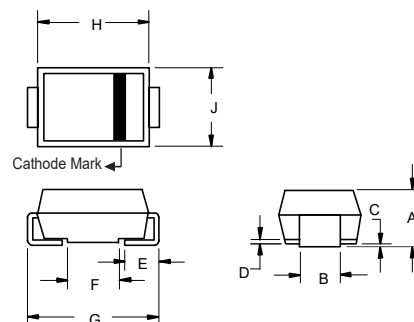
- Halogen Free. "Green" Device (Note 1)
- Fully Automotive Qualified to AEC-Q101
- Low Profile Package
- High Surge Capability
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1
- Lead Free Finish/RoHS Compliant (Note 2)("P" Suffix Designates RoHS Compliant. See Ordering Information)

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

Parameter	Symbol	Value		Unit
		SS14Q-L	SS16Q-L	
Peak Repetitive Reverse Voltage	$V_{RRM}$	40	60	V
Working Peak Reverse Voltage	$V_{RWM}$			
DC Blocking Voltage	$V_R$			
RMS Reverse Voltage	$V_{RMS}$	28	42	V
Average Rectified Forward Current @ $T_L=130^\circ\text{C}$	$I_{F(AV)}$	1		A
Non-Repetitive Peak Surge Current @ 8.3ms Half Sine Wave	$I_{FSM}$	40		A
Current Squared Time @ $1\text{ms} \leq t \leq 8.3\text{ms}$	$I^2t$	6.64		A <sup>2</sup> s

# 1 Amp Surface Mount Schottky Rectifier 40 to 60 Volts

## SMA (DO-214AC)



DIM	INCHES		MM		NOTE
	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	

## Marking code

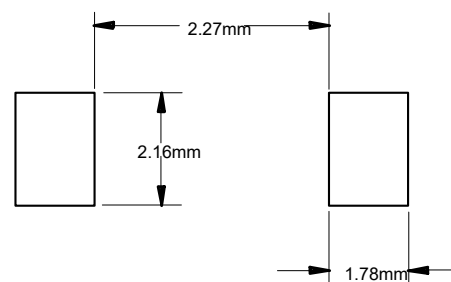
Part Number	Marking Code
SS14Q-L	SS14
SS16Q-L	SS16

## Internal Structure

Pin	Description	Simplified Outline	Graphic Symbol
1	cathode	<p>XXXX = Marking code YYWW = Date Code</p>	
2	anode		

- 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.

## SUGGESTED SOLDER PAD LAYOUT



### Thermal characteristics

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
$T_J$	Operating Junction Temperature Range		-55		150	°C
$T_{stg}$	Storage Temperature Range		-55		150	°C
$R_{th(J-L)}$	Thermal Resistance from Junction to Lead	Note 1		30		°C/W
$R_{th(J-A)}$	Thermal Resistance from Junction to Ambient	Note 1		75		°C/W

Note:

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

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Forward Voltage						
SS14Q-L	$V_F$	$I_F=1A; T_J=25^\circ C$ $I_F=1A; T_J=125^\circ C$		0.45 0.35	0.50 0.40	V
SS16Q-L		$I_F=1A; T_J=25^\circ C$ $I_F=1A; T_J=125^\circ C$		0.50 0.45	0.70 0.55	
Reverse Current						
SS14Q-L	$I_R$	at Rated $V_R; T_J=25^\circ C$ at Rated $V_R; T_J=125^\circ C$			0.1 20	mA
SS16Q-L		at Rated $V_R; T_J=25^\circ C$ at Rated $V_R; T_J=125^\circ C$			0.05 10	
Junction Capacitance						
SS14Q-L SS16Q-L	$C_J$	$V_R=4V; f=1MHz; T_J=25^\circ C$		95 75		pF

**Curve Characteristics**

Fig. 1 - Forward Current Derating Curve

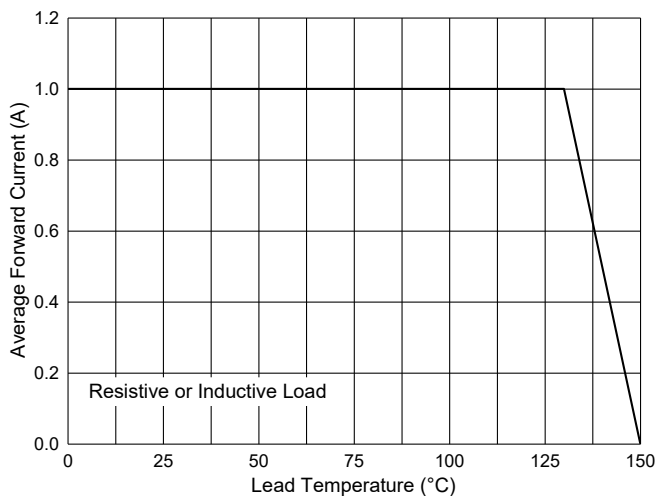


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

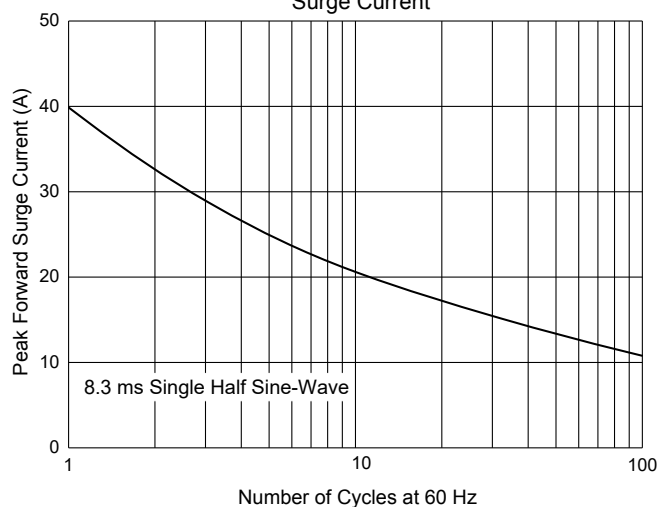


Fig. 3 - Typical Forward Characteristics

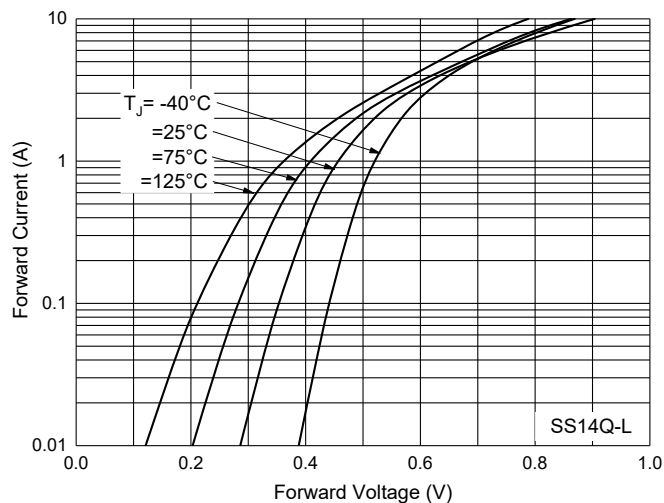


Fig. 4 - Typical Reverse Leakage Characteristics

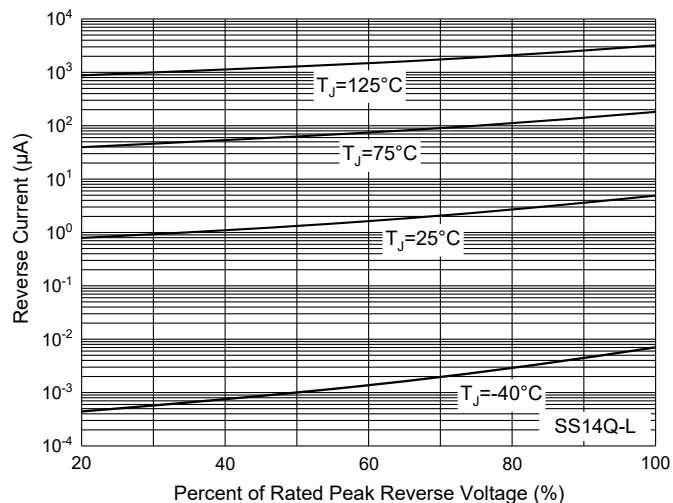


Fig. 5 - Typical Forward Characteristics

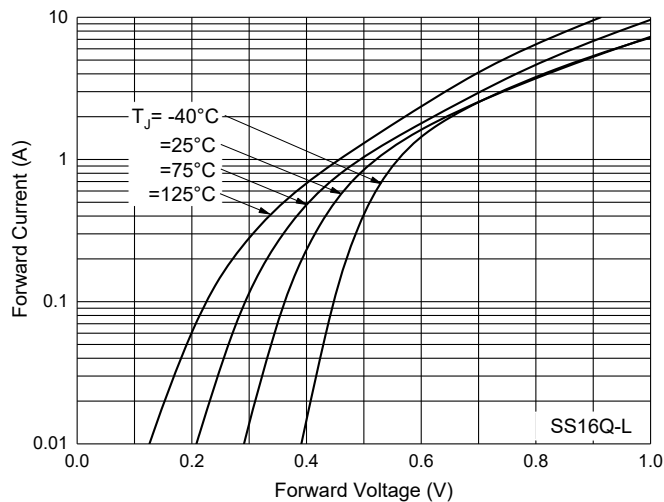
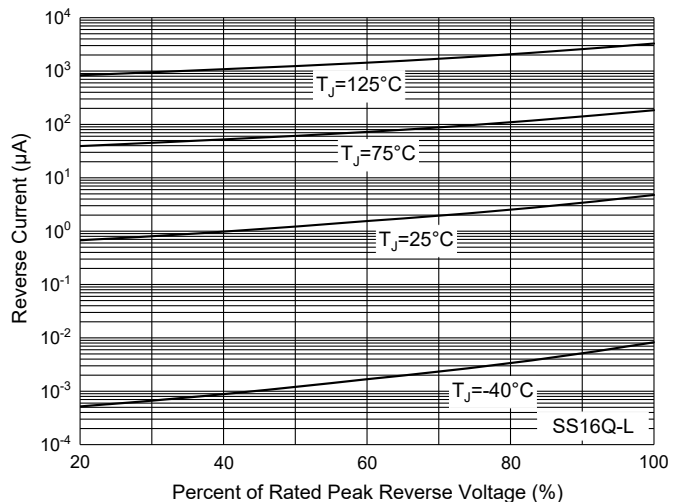


Fig. 4 - Typical Reverse Leakage Characteristics



## Curve Characteristics

Fig. 7 - Capacitance Characteristics

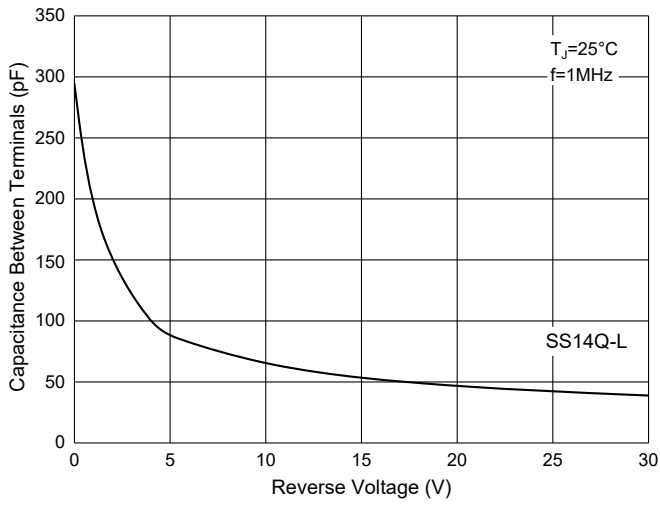
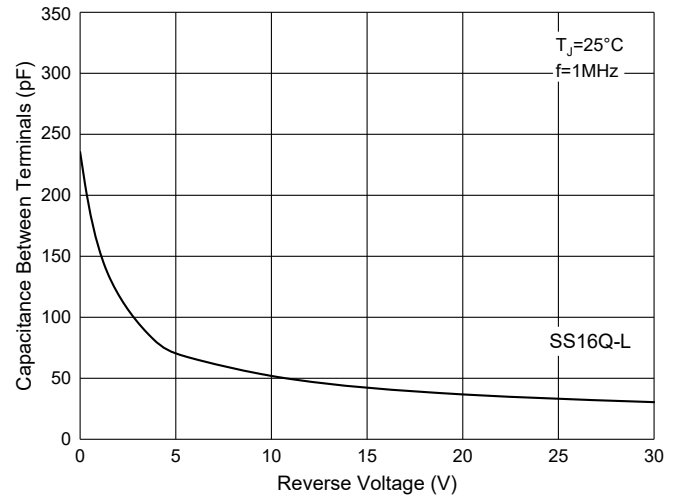


Fig. 8 - Capacitance Characteristics



## Ordering Information

Device	Packing
SS14Q-LTP ~ SS16Q-LTP	Tape&Reel:5Kpcs/Reel

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