

## 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
		SS14FLQ	SS16FLQ	
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 @ $T_L=135^\circ\text{C}$	$I_{F(AV)}$	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		$\text{A}^2\text{s}$

## Marking Code

Part Number	Marking Code
SS14FLQ	SS14
SS16FLQ	SS16

## Internal Structure

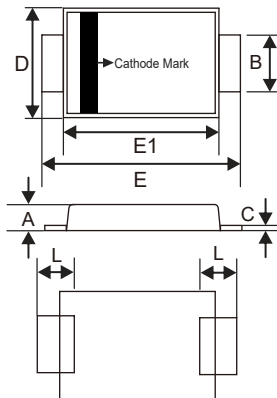
Pin	Description	Simplified Outline	Graphic Symbol
1	Cathode	 <p>XXXX = Marking Code YYWW = Date Code</p>	
2	Anode		

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.

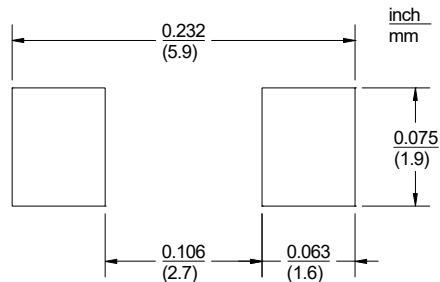
# 1 Amp Surface Mount Schottky Rectifier 40 to 60 Volts

## DO-221AC(SMA-FL)



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.035	0.049	0.90	1.25	
B	0.049	0.065	1.25	1.65	
C	0.004	0.016	0.10	0.40	
D	0.089	0.116	2.25	2.95	
E	0.173	0.220	4.40	5.60	
E1	0.126	0.181	3.20	4.60	
L	0.020	0.059	0.50	1.50	

## Suggested Solder Pad Layout



### Thermal characteristics

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
T <sub>J</sub>	Operating Junction Temperature Range		-55		150	°C
T <sub>stg</sub>	Storage Temperature Range		-55		150	°C
R <sub>th(J-L)</sub>	Thermal Resistance from Junction to Lead	Note 1		20		°C/W
R <sub>th(J-A)</sub>	Thermal Resistance from Junction to Ambient	Note 1		70		°C/W

Note:  
 1. Mounted on P.C.B. with 8 mm x 8 mm copper pad areas.

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Forward Voltage						
SS14FLQ	V <sub>F</sub>	I <sub>F</sub> =1A;T <sub>J</sub> =25°C		0.45	0.50	V
		I <sub>F</sub> =1A;T <sub>J</sub> =125°C		0.35	0.40	
SS16FLQ		I <sub>F</sub> =1A;T <sub>J</sub> =25°C		0.50	0.70	
		I <sub>F</sub> =1A;T <sub>J</sub> =125°C		0.45	0.55	
Reverse Current						
SS14FLQ	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			20	
SS16FLQ		at Rated V <sub>R</sub> ;T <sub>J</sub> =25°C			0.05	
		at Rated V <sub>R</sub> ;T <sub>J</sub> =125°C			10	
Junction Capacitance						
SS14FLQ	C <sub>J</sub>	V <sub>R</sub> =4V;f=1MHz;T <sub>J</sub> =25°C		95		pF
SS16FLQ				75		

## Curve Characteristics

Fig. 1 - Forward Current Derating Curve

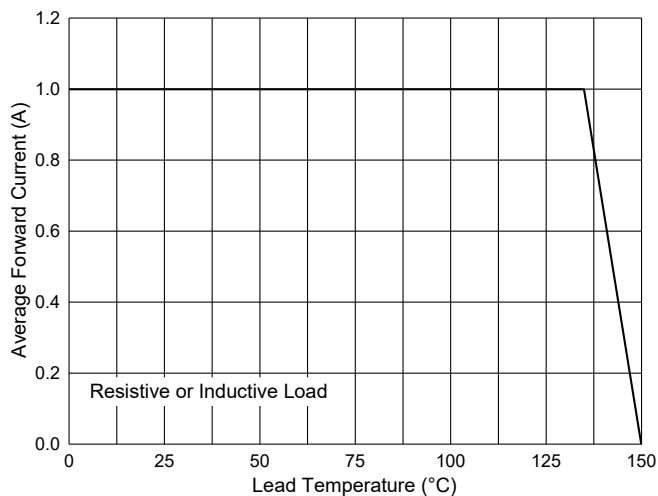


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

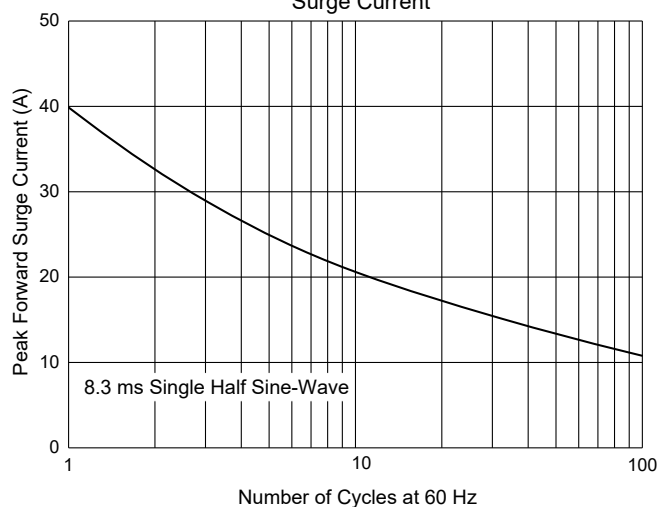


Fig. 3 - Typical Forward Characteristics

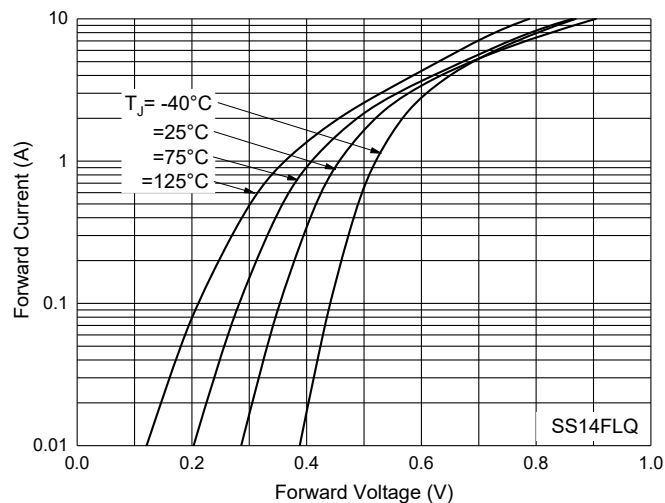


Fig. 4 - Typical Reverse Leakage Characteristics

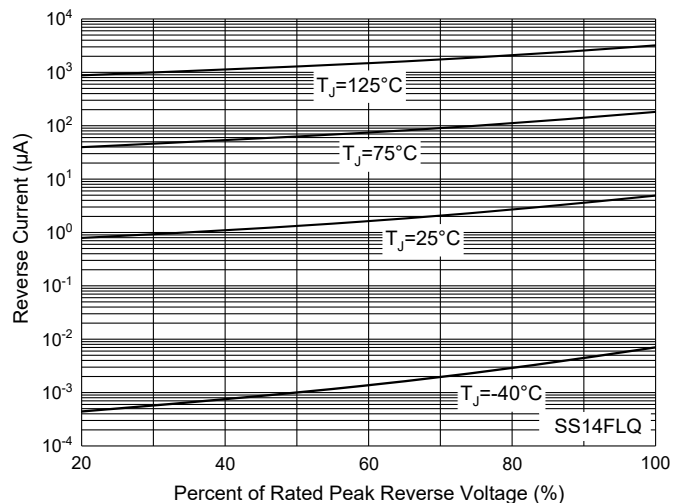


Fig. 5 - Typical Forward Characteristics

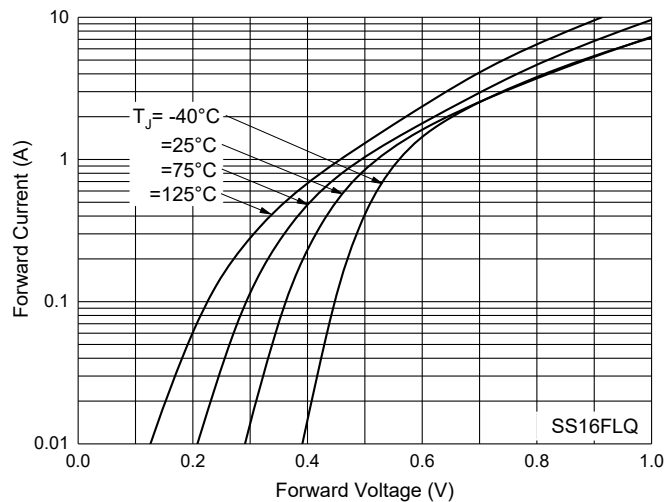
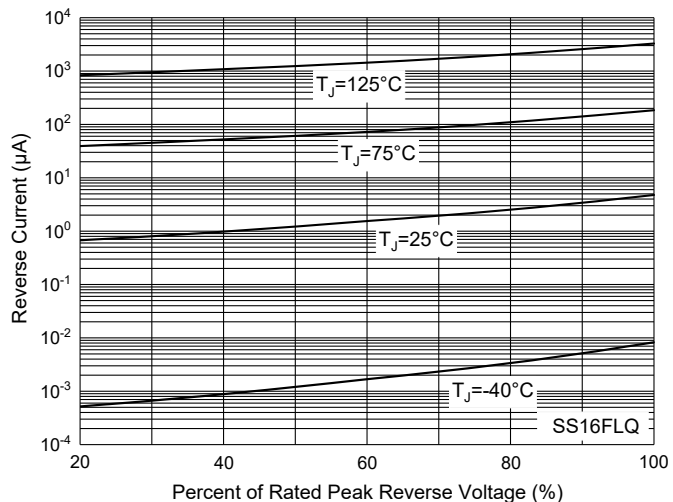


Fig. 4 - Typical Reverse Leakage Characteristics



Curve Characteristics

Fig. 7 - Capacitance Characteristics

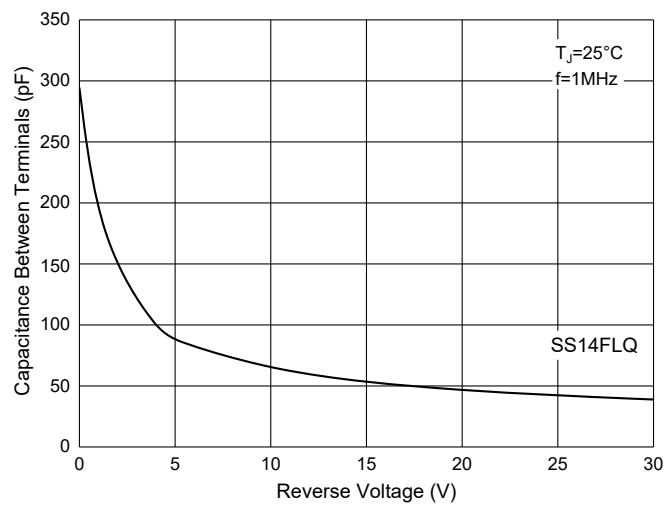
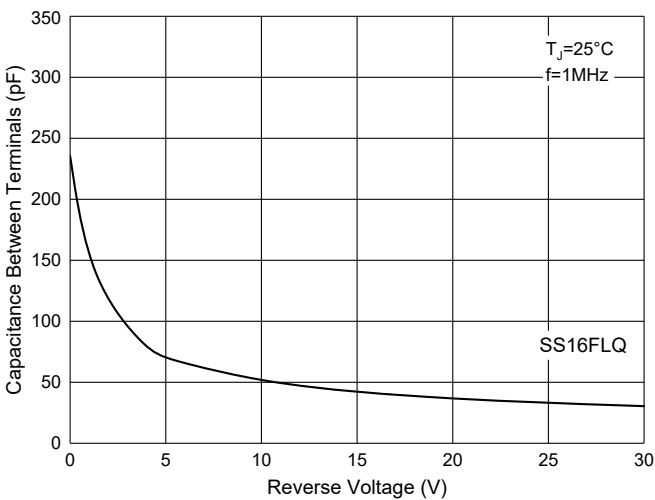


Fig. 8 - Capacitance Characteristics



# Ordering Information

Device	Packing
Part Number -TP	Tape&Reel:10Kpcs/Reel

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