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)

3 Amp Surface Mount Schottky Rectifier 100 to 200 Volts

Maximum Ratings @ 25°C (Unless Otherwise Specified)

Parameter	Symbol	Value		Unit
		SK310AFLQ	SK320AFLQ	
Peak Repetitive Reverse Voltage	V_{RRM}	100	200	V
Working Peak Reverse Voltage	V_{RWM}			
DC Blocking Voltage	V_R			
RMS Reverse Voltage	V_{RMS}	70	140	V
Average Rectified Forward Current @ T_L=120°C	$I_{F(AV)}$	3		A
Non−Repetitive Peak Surge Current @8.3ms Half Sine Wave	I_{FSM}	80		A
Current Squared Time @ 1ms≤t≤8.3ms	I^2t	26.56		A^2s

Marking Code

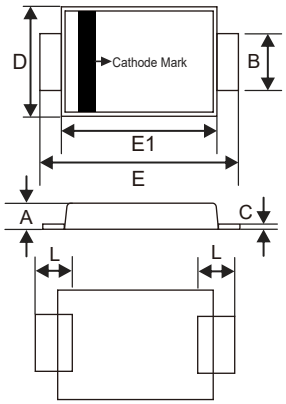
Part Number	Marking Code
SK310AFLQ	SK310A
SK320AFLQ	SK320A

Internal Structure

Pin	Description	Simplified Outline	Graphic Symbol
1	cathode	 XXXX = Marking Code YYWW = Date Code	
2	anode		

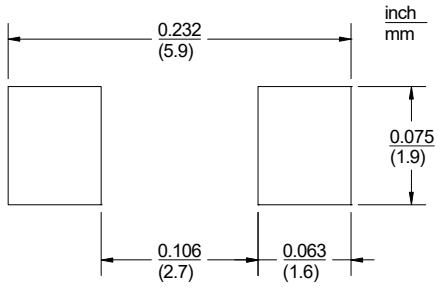
Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
2. High temperature solder exemption applied, see EU directive annex 7a.

DO-221AC(SMA-FL)



DIMENSIONS					
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_J	Operating Junction Temperature Range		-55		175	°C
T_{stg}	Storage Temperature Range		-55		175	°C
$Rth_{(J-L)}$	Thermal Resistance from Junction to Lead	Note 1		20		°C/W
$Rth_{(J-A)}$	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						
SK310AFLQ	V_F	I_F=3A;T_J=25°C		0.76	0.80	V
		I_F=3A;T_J=125°C		0.63	0.70	
SK320AFLQ		I_F=3A;T_J=25°C		0.82	0.90	
		I_F=3A;T_J=125°C		0.68	0.75	
Reverse Current						
SK310AFLQ	I_R	at Rated V_R;T_J=25°C			5	μA
		at Rated V_R;T_J=125°C			150	
SK320AFLQ		at Rated V_R;T_J=25°C			5	
		at Rated V_R;T_J=125°C			150	
Junction Capacitance						
SK310AFLQ	C_J	V_R=4V;f=1MHz;T_J=25°C		100		pF
SK320AFLQ				60		

Curve Characteristics

Fig. 1 - Forward Current Derating Curve

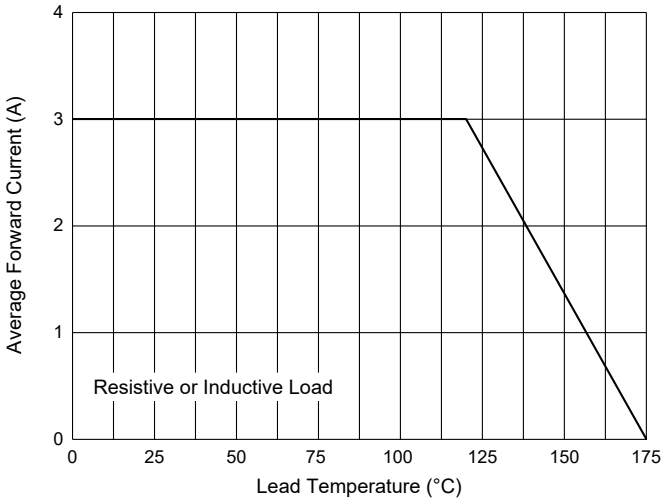


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

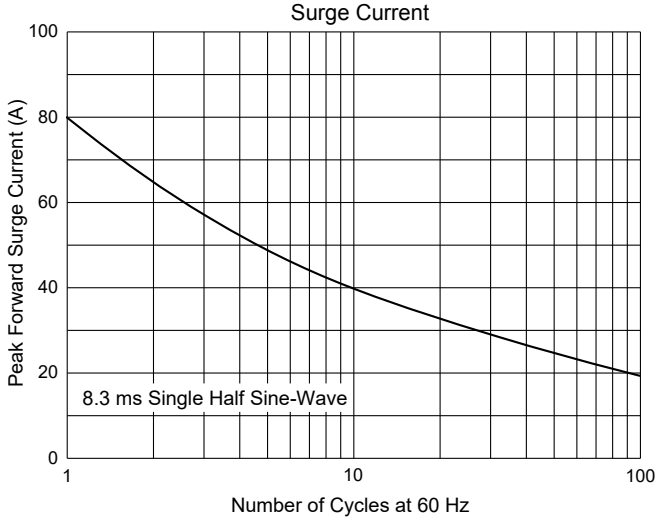


Fig. 3 - Typical Forward Characteristics

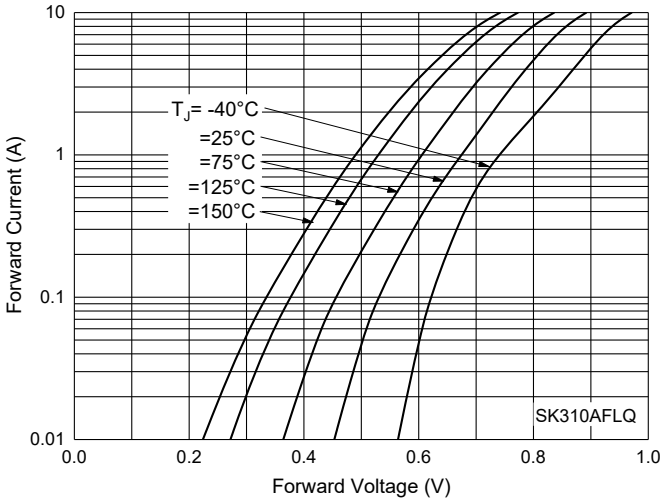


Fig. 4 - Typical Reverse Leakage Characteristics

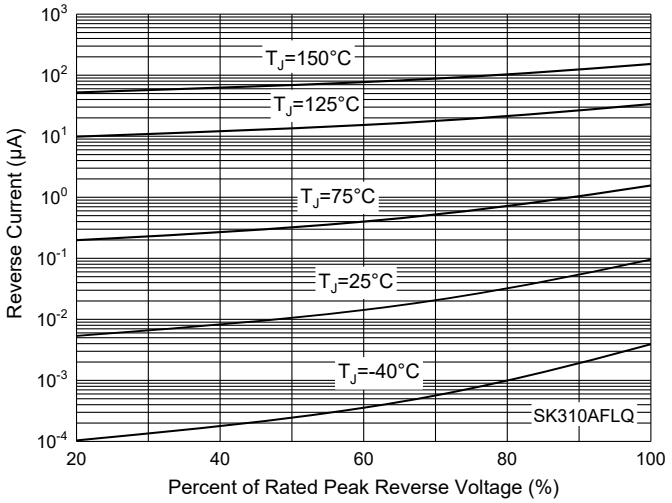


Fig. 5 - Typical Forward Characteristics

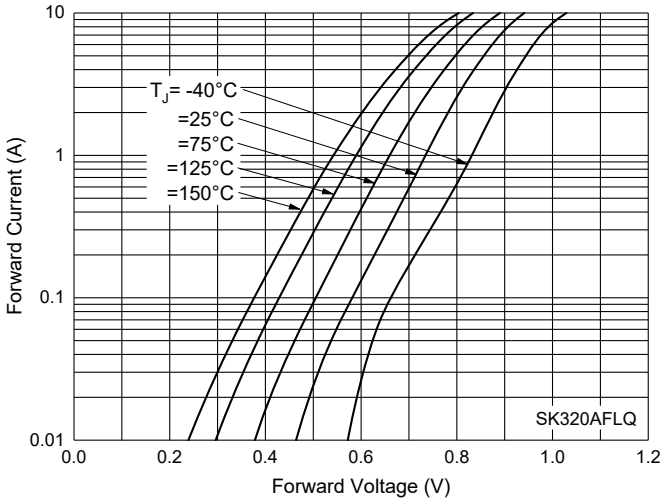
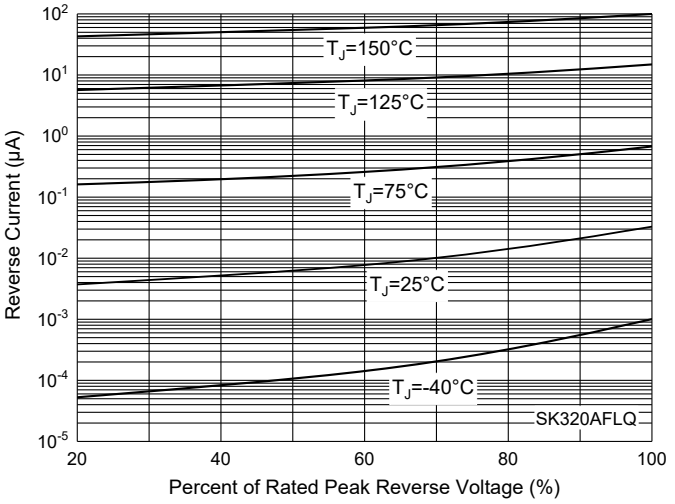


Fig. 6 - Typical Reverse Leakage Characteristics



Curve Characteristics

Fig. 7 - Typical Capacitance Characteristics

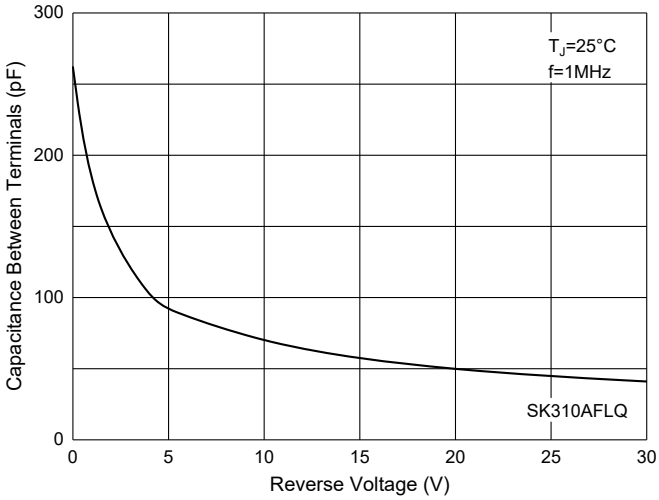
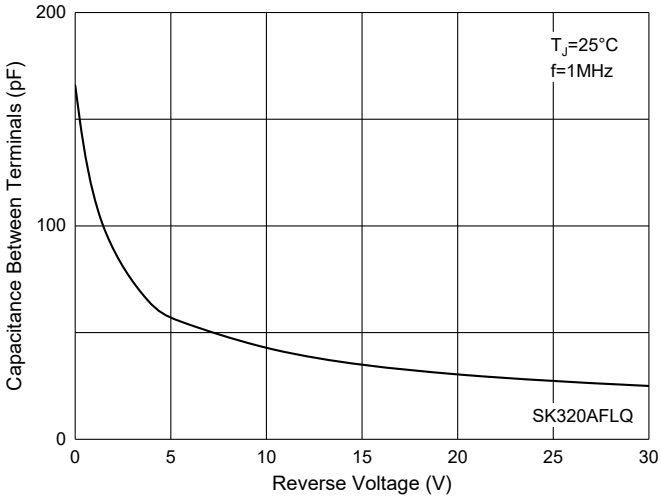


Fig. 8 - Typical Capacitance Characteristics



Ordering Information

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