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 100 to 200 Volts

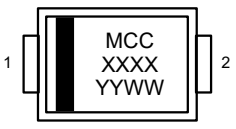
Maximum Ratings @ 25°C (Unless Otherwise Specified)

Parameter	Symbol	Value		Unit
		SK210Q-L	SK220Q-L	
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=135°C	$I_{F(AV)}$	2		A
Non−Repetitive Peak Surge Current @8.3ms Half Sine Wave	I_{FSM}	75		A
Current Squared Time @ 1ms≤t≤8.3ms	I^2t	23.34		A^2s

Marking code

Part Number	Marking code
SK210Q-L	SK210
SK220Q-L	SK220

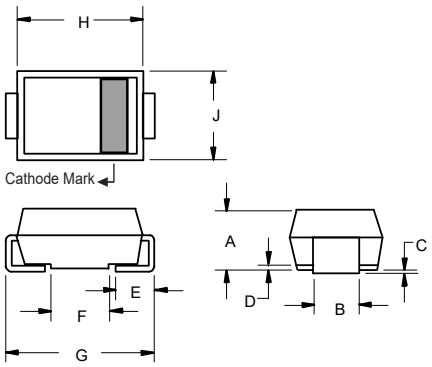
Internal Structure

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.

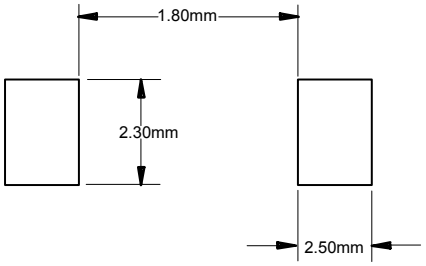
2. High Temperature Solder Exemption Applied, see EU Directive Annex 7a.

DO-214AA (SMB) (LEAD FRAME)



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.079	0.103	2.00	2.62	
B	0.075	0.087	1.91	2.21	
C	0.002	0.008	0.05	0.20	
D	0.006	0.012	0.15	0.31	
E	0.030	0.060	0.76	1.52	
F	0.065	0.091	1.65	2.32	
G	0.200	0.220	5.08	5.59	
H	0.160	0.191	4.06	4.85	
J	0.130	0.155	3.30	3.94	

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		22		°C/W
$Rth_{(J-A)}$	Thermal Resistance from Junction to Ambient	Note 1		63		°C/W

Note:
1.Mounted on P.C.B. with 0.6" x 0.6" (16 mm x 16 mm) copper pad areas.

Electrical Characteristics @ 25°C Unless Otherwise Specified

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Forward Voltage						
SK210Q-L	V_F	I_F=2A;T_J=25°C		0.77	0.80	V
		I_F=2A;T_J=125°C		0.62	0.66	
SK220Q-L		I_F=2A;T_J=25°C		0.82	0.90	
		I_F=2A;T_J=125°C		0.68	0.75	
Reverse Current						
SK210Q-L	I_R	at Rated V_R;T_J=25°C			5	uA
		at Rated V_R;T_J=125°C			150	
SK220Q-L		at Rated V_R;T_J=25°C			5	
		at Rated V_R;T_J=125°C			150	
Junction Capacitance						
SK210Q-L	C_J	V_R=4V;f=1MHz;T_J=25°C		62		pF
SK220Q-L				40		

Curve Characteristics

Fig. 1 - Forward Current Derating Curve

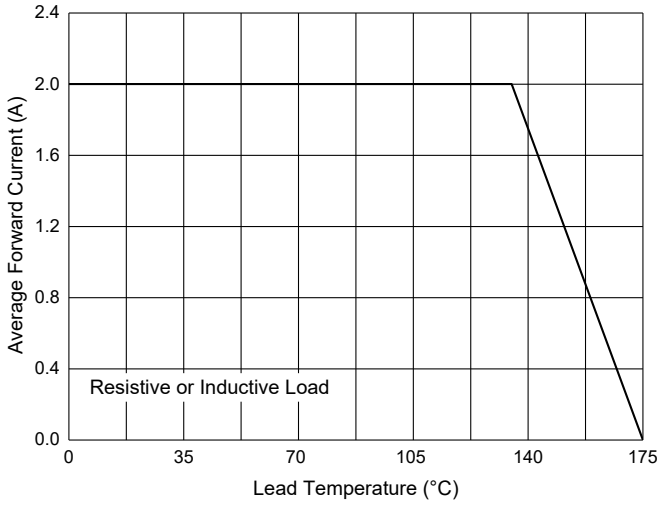


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

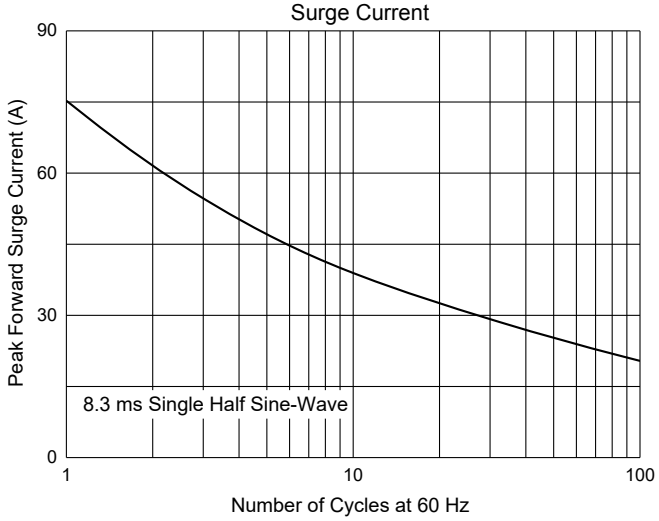


Fig. 3 - Typical Forward Characteristics

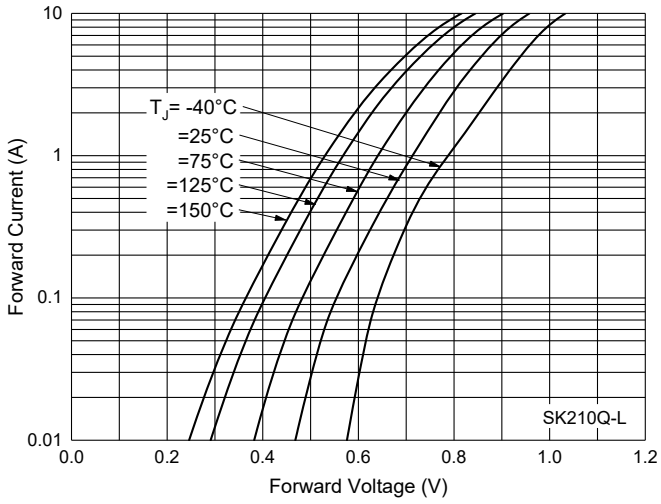


Fig. 4 - Typical Reverse Leakage Characteristics

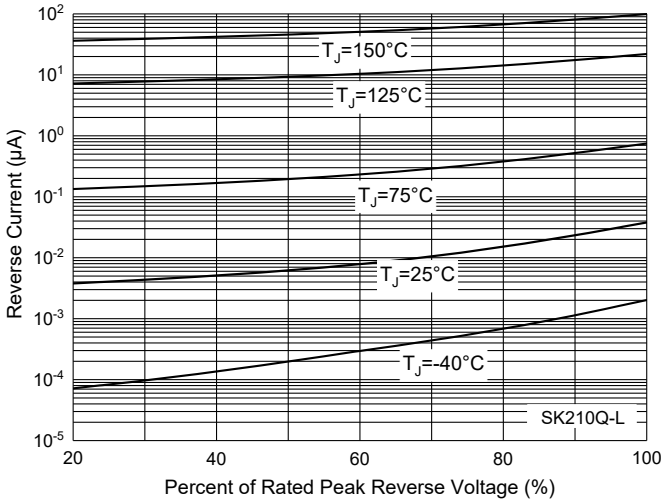


Fig. 5 - Typical Forward Characteristics

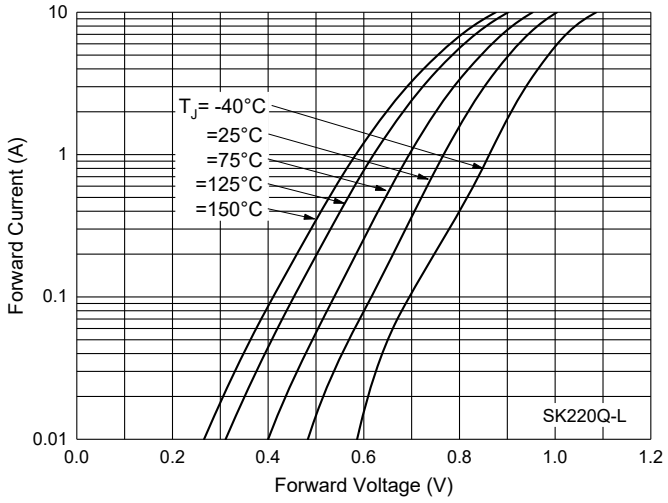
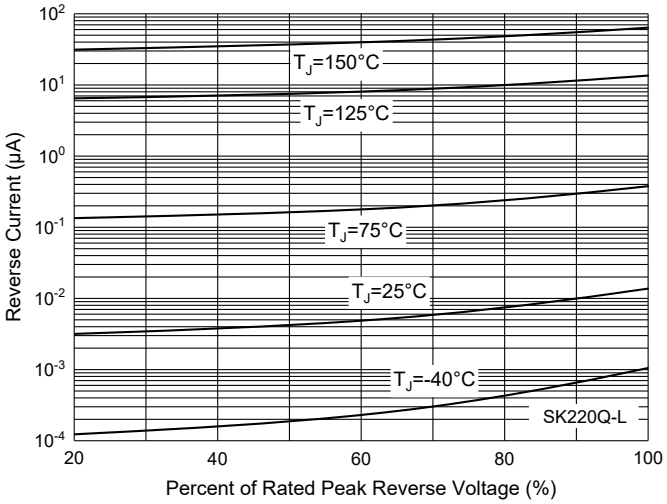


Fig. 6 - Typical Reverse Leakage Characteristics



Curve Characteristics

Fig. 7 - Capacitance Characteristics

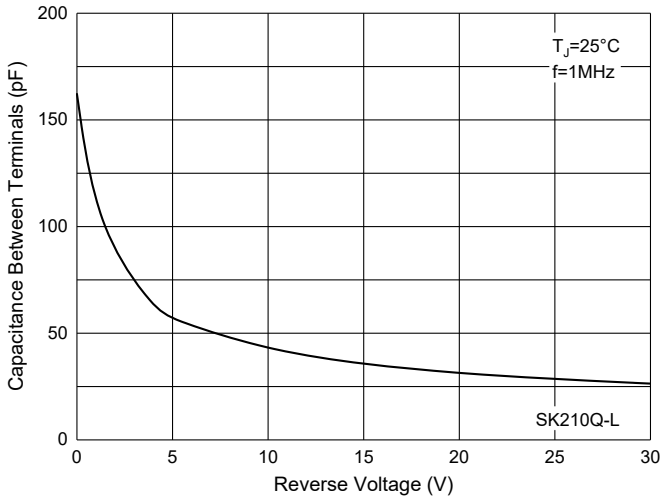
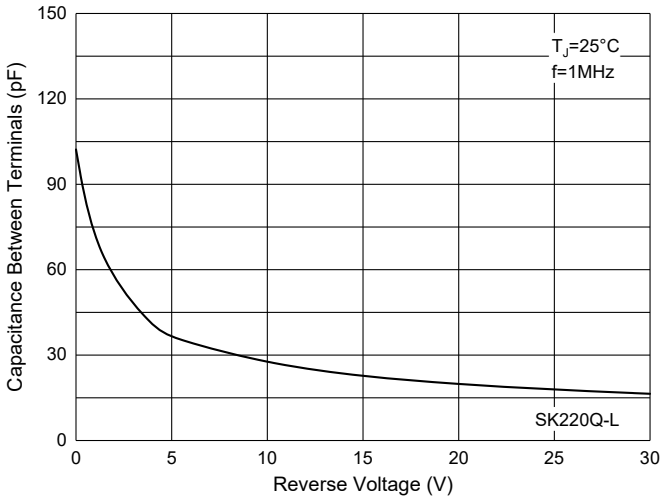


Fig. 8 - Capacitance Characteristics



Ordering Information

Device	Packing
Part Number-LTP	Tape&Reel:3Kpcs/Reel