

## Features

- Halogen Free. "Green" Device (Note 1)
- High Current 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
		SK 12-L	SK 13-L	SK 14-L	SK 15-L	SK 16-L	SK 18-L	SK 110-L	SK 1150-L	SK 1200-L		
Peak Repetitive Reverse Voltage	$V_{RRM}$											V
Working Peak Reverse Voltage	$V_{RWM}$	20	30	40	50	60	80	100	150	200		
DC Blocking Voltage	$V_R$											
RMS Reverse Voltage	$V_{RMS}$	14	21	28	35	42	56	70	105	140	V	
Average Rectified Forward Current	$I_{F(AV)}$	1										A
Non-Repetitive Peak Surge Current @ 8.3ms Half Sine Wave	$I_{FSM}$	30										A
Current Squared Time @ $1ms \leq t \leq 8.3ms$	$I^2t$	3.735										A <sup>2</sup> s

## Marking code

Part Number	Marking Code
SK12-L	SK12
SK13-L	SK13
SK14-L	SK14
SK15-L	SK15
SK16-L	SK16
SK18-L	SK18
SK110-L	SK110
SK1150-L	SK1150
SK1200-L	SK1200

## Internal Structure

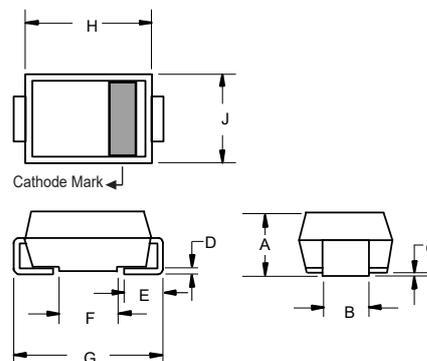
Pin	Description	Simplified Outline	Graphic Symbol
1	Cathode		
2	Anode		

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 20 to 200 Volts

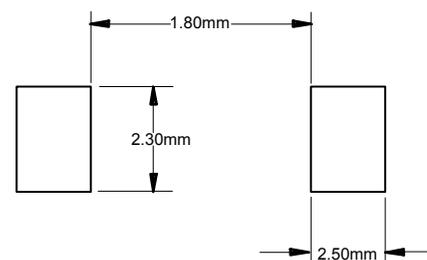
## SMB(DO-214AA)



### 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	SK12-L ~ SK14-L	-55		125	°C
$T_J$	Operating Junction Temperature Range	SK15-L ~ SK1200-L	-55		150	°C
$T_{stg}$	Storage Temperature Range		-55		150	°C
$R_{th(J-L)}$	Thermal Resistance from Junction to Lead	Note 1		15		°C/W
$R_{th(J-A)}$	Thermal Resistance from Junction to Ambient	Note 1		71		°C/W

Note:

1. Mounted on P.C.B. with 8mm\*8mm copper pad areas.

## Electrical Characteristics @ 25°C Unless Otherwise Specified

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Forward Voltage SK12-L ~ SK14-L SK15-L ~ SK16-L SK18-L ~ SK110-L SK1150-L ~ SK1200-L	$V_F$	$I_F=1A; T_J=25^\circ C$			0.50 0.70 0.85 0.90	V
Reverse Current SK12-L ~ SK16-L SK18-L ~ SK1200-L	$I_R$	at Rated $V_R; T_J=25^\circ C$ at Rated $V_R; T_J=125^\circ C$ at Rated $V_R; T_J=25^\circ C$ at Rated $V_R; T_J=125^\circ C$			0.1 20 0.01 5	mA
Junction Capacitance SK12-L ~ SK14-L SK15-L ~ SK16-L SK18-L ~ SK110-L SK1150-L ~ SK1200-L	$C_J$	$V_R=4V; f=1MHz; T_J=25^\circ C$		125 90 60 50		pF

## Curve Characteristics

Fig. 1 - Forward Current Derating Curve

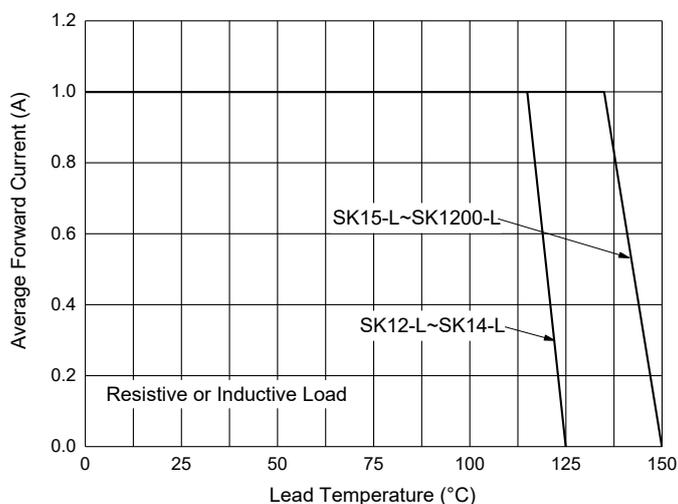


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

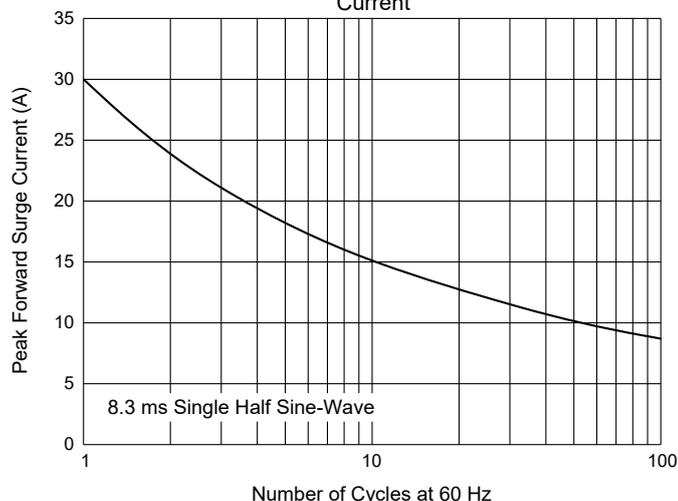


Fig. 3 - Typical Forward Characteristics

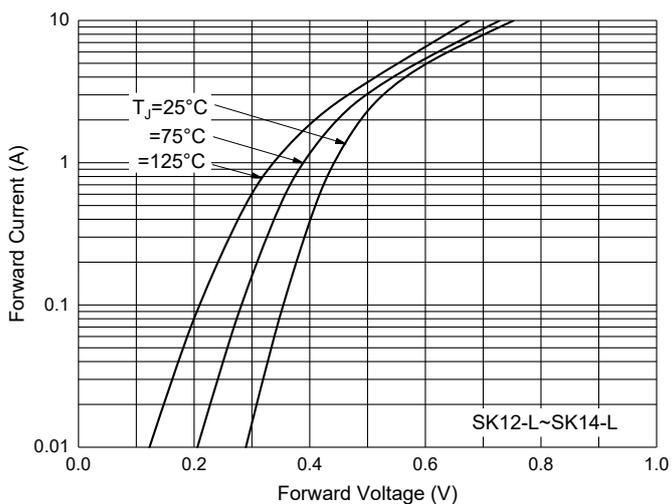


Fig. 4 - Typical Reverse Leakage Characteristics

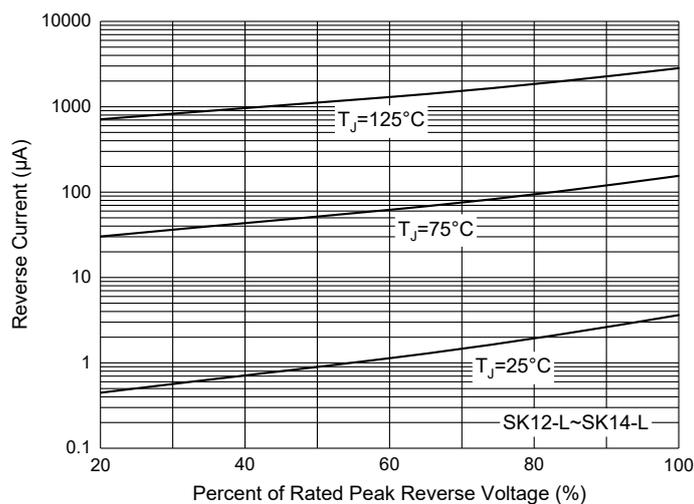


Fig. 5 - Typical Forward Characteristics

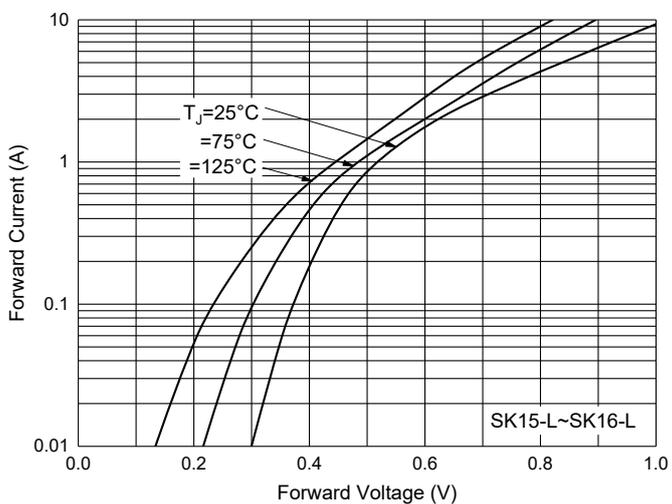
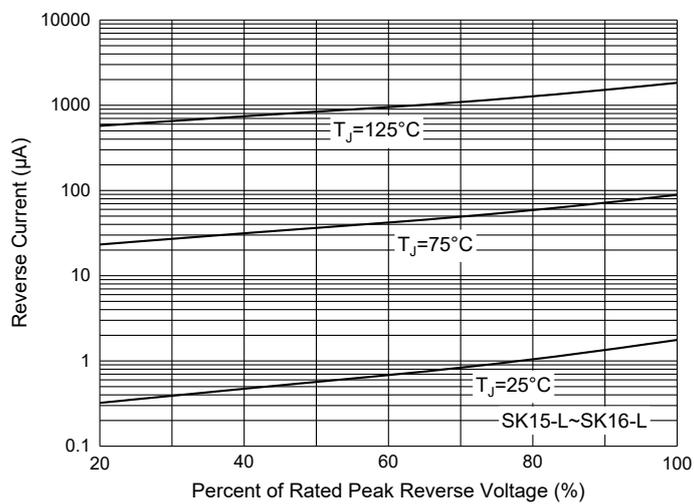


Fig. 6 - Typical Reverse Leakage Characteristics



**Curve Characteristics**

Fig. 7 - Typical Forward Characteristics

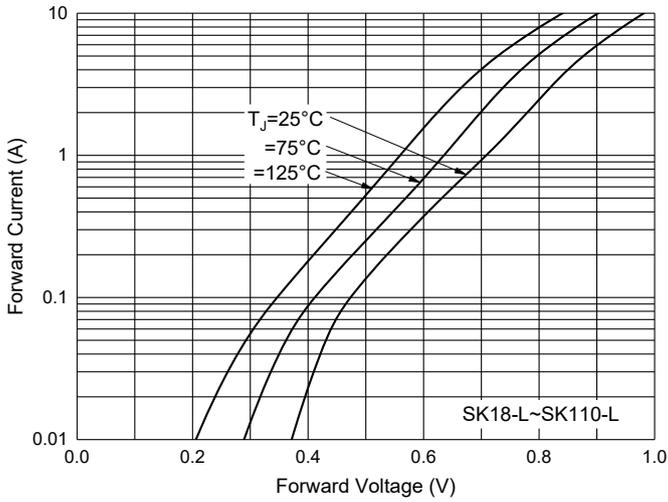


Fig. 8 - Typical Reverse Leakage Characteristics

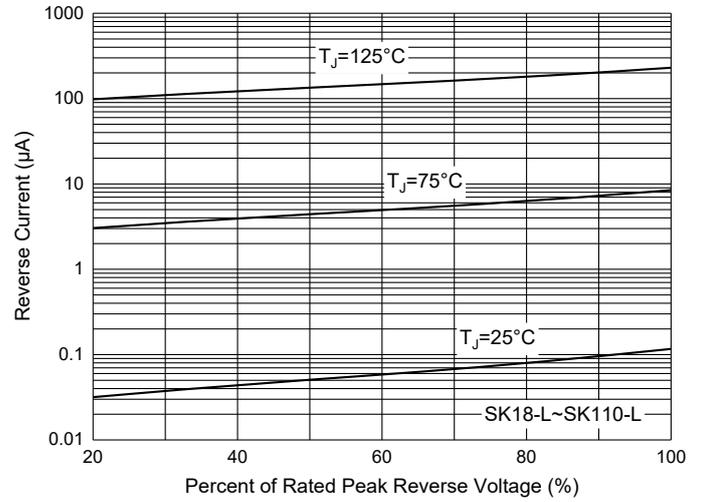


Fig. 9 - Typical Forward Characteristics

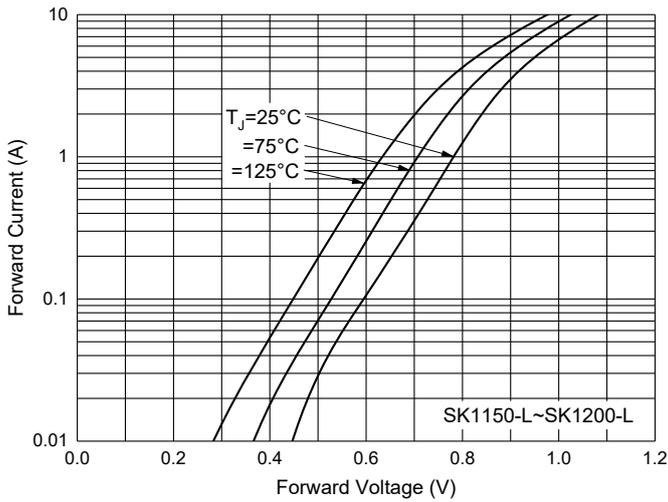


Fig. 10 - Typical Reverse Leakage Characteristics

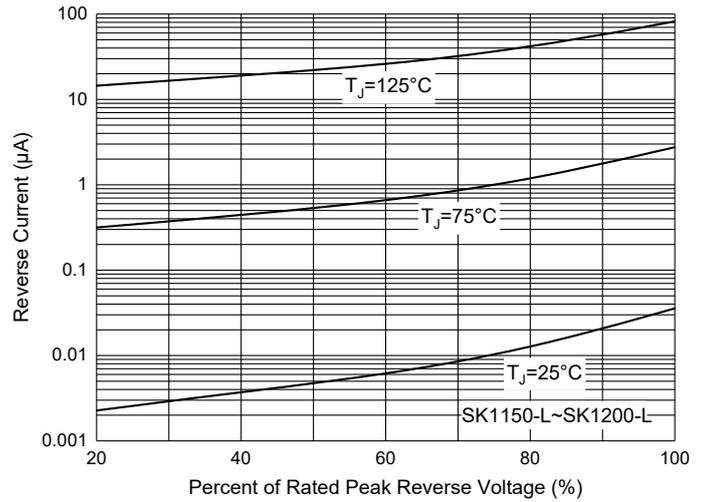
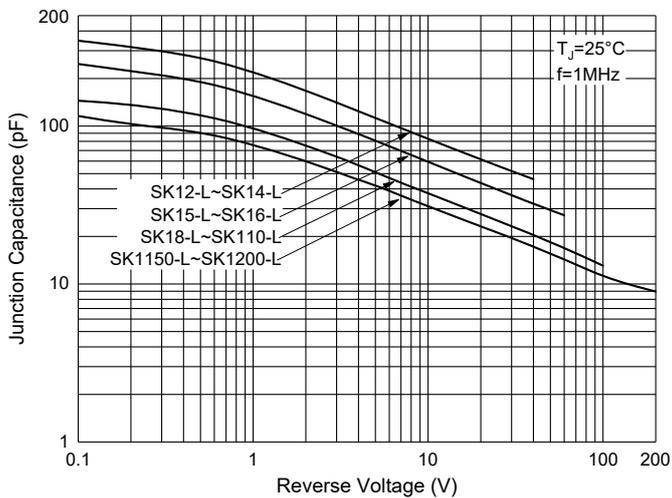


Fig. 11 - Typical Capacitance Characteristics



## Ordering Information

Device	Packing
SK12-LTP ~ SK1200-LTP	Tape&Reel:3Kpcs/Reel

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