Features

- Halogen Free. "Green" Device (Note 1)
- AEC-Q101 Qualified
- Guard Ring Protection
- Easy Pick and Place
- High Current Capability With Low Forward Voltage
- 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)

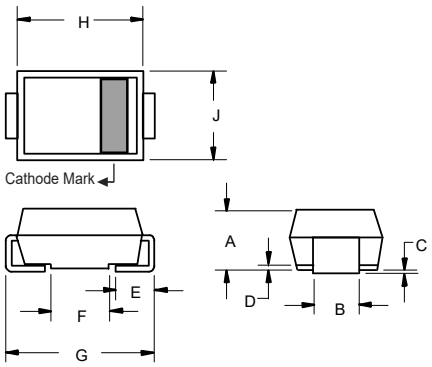
3 Amp Surface Mount Schottky Rectifier 20 to 100 Volts

Maximum Ratings @ 25°C (Unless Otherwise Specified)

Parameter	Symbol	Value							Unit
		SK32B HE3-L	SK33B HE3-L	SK34B HE3-L	SK35B HE3-L	SK36B HE3-L	SK38B HE3-L	SK310B HE3-L	
Peak Repetitive Reverse Voltage	V_{RRM}	20	30	40	50	60	80	100	V
Working Peak Reverse Voltage	V_{RWM}								
DC Blocking Voltage	V_R								
RMS Reverse Voltage	V_{RMS}	14	21	28	35	42	56	70	V
Average Rectified Forward Current	$I_{F(AV)}$	3							A
Non-Repetitive Peak Surge Current @ 8.3ms Half Sine Wave	I_{FSM}	100							A
Current Squared Time @1ms≤t≤8.3ms	I^2t	41.5							A^2s

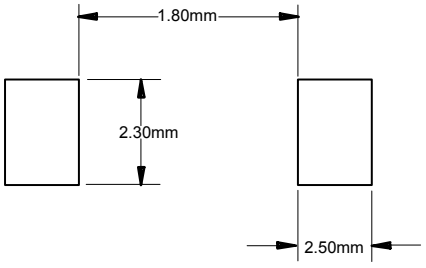
DO-214AA

(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	

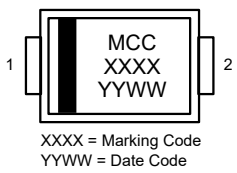
Suggested Solder Pad Layout



Marking code

Part Number	Marking Code
SK32BHE3-L	SK32B
SK33BHE3-L	SK33B
SK34BHE3-L	SK34B
SK35BHE3-L	SK35B
SK36BHE3-L	SK36B
SK38BHE3-L	SK38B
SK310BHE3-L	SK310B

Internal Structure

Pin	Description	Simplified Outline	Graphic Symbol
1	Cathode		
2	Anode		

XXXX = Marking Code
YYWW = Date Code

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.

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
$Rth_{(J-L)}$	Thermal Resistance from Junction to Lead	Note 1		18		°C/W
$Rth_{(J-A)}$	Thermal Resistance from Junction to Ambient	Note 1		70		°C/W

Note:
1.Mounted on P.C.B. with 8.0 mm x 8.0 mm copper pad areas.

Electrical Characteristics @ 25°C Unless Otherwise Specified

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Forward Voltage						
SK32BHE3-L ~ SK34BHE3-L	V_F	I_F=3A;T_J=25°C			0.50	V
SK35BHE3-L ~ SK36BHE3-L					0.75	
SK38BHE3-L ~ SK310BHE3-L					0.85	
Reverse Current						
SK32BHE3-L ~ SK36BHE3-L	I_R	at Rated V_R;T_J=25°C			0.1	mA
		at Rated V_R;T_J=125°C			30	
SK38BHE3-L ~ SK310BHE3-L		at Rated V_R;T_J=25°C			0.01	
		at Rated V_R;T_J=125°C			0.2	
Junction Capacitance						
SK32BHE3-L ~ SK34BHE3-L	C_J	V_R=4V;f=1MHz;T_J=25°C		150		pF
SK35BHE3-L ~ SK36BHE3-L				135		
SK38BHE3-L ~ SK310BHE3-L				95		

Curve Characteristics

Fig. 1 - Forward Current Derating Curve

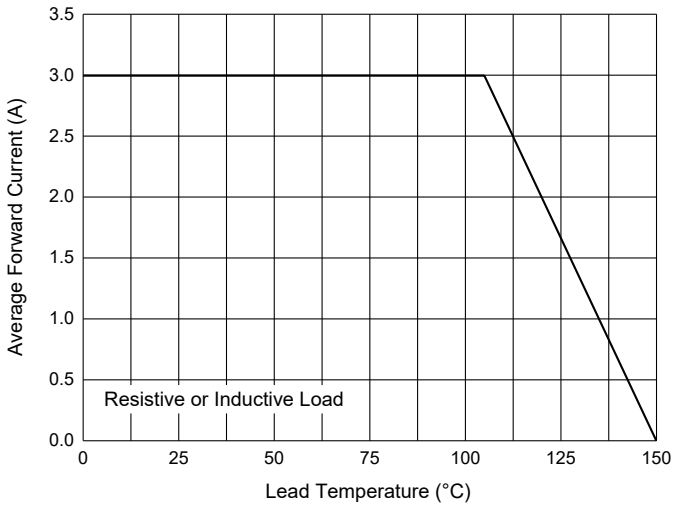


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

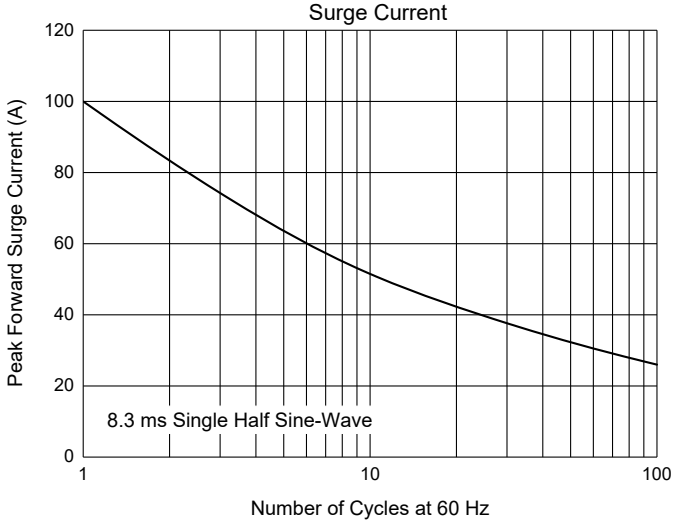


Fig. 3 - Typical Forward Characteristics

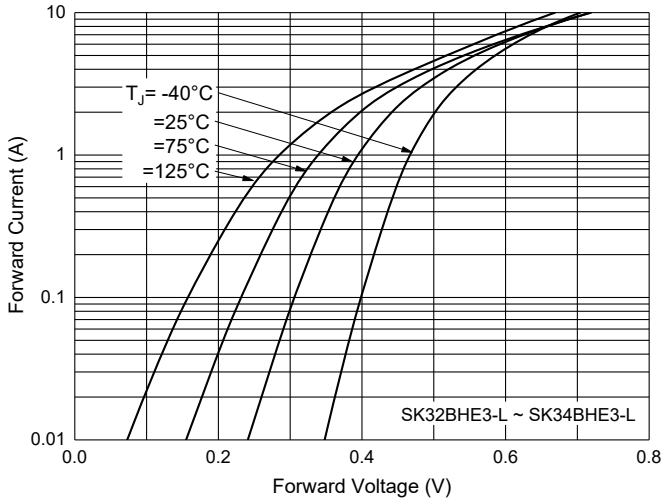


Fig. 4 - Typical Reverse Leakage Characteristics

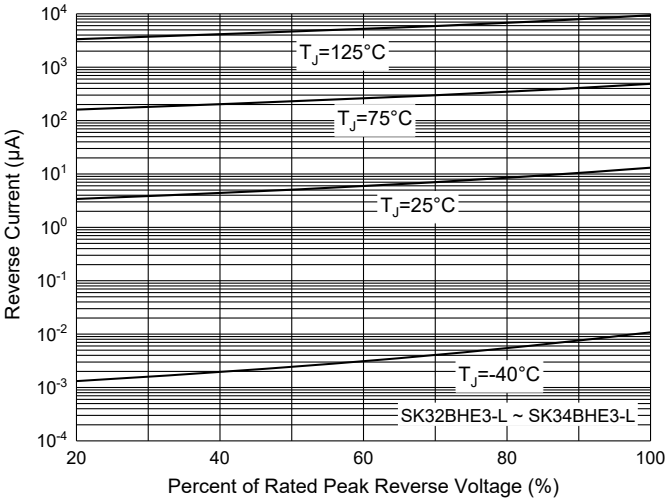


Fig. 5 - Typical Forward Characteristics

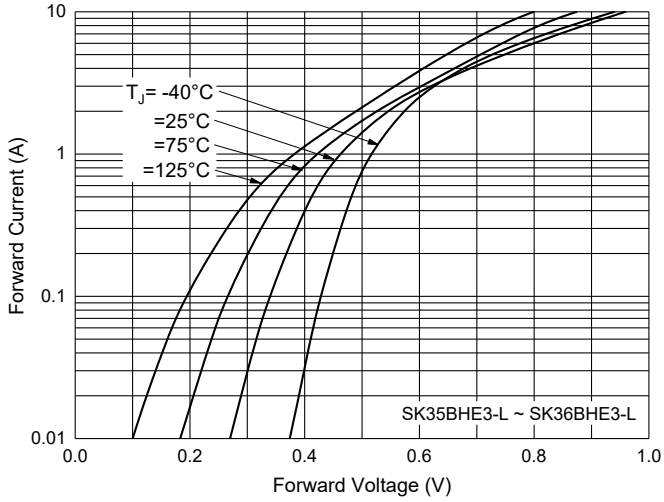
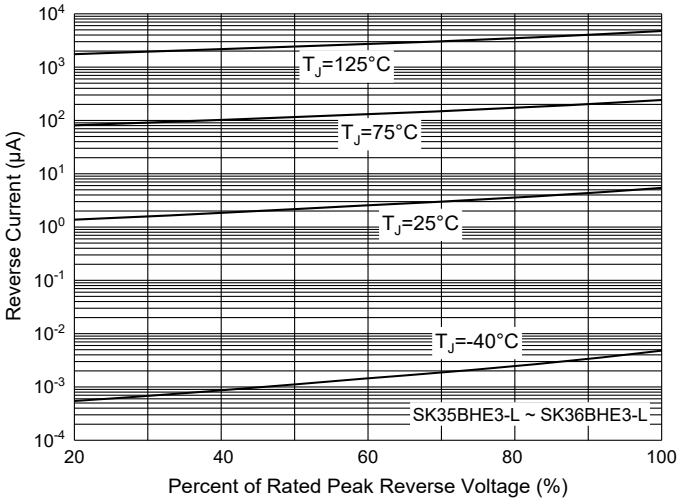


Fig. 6 - Typical Reverse Leakage Characteristics



Curve Characteristics

Fig. 7 - Typical Forward Characteristics

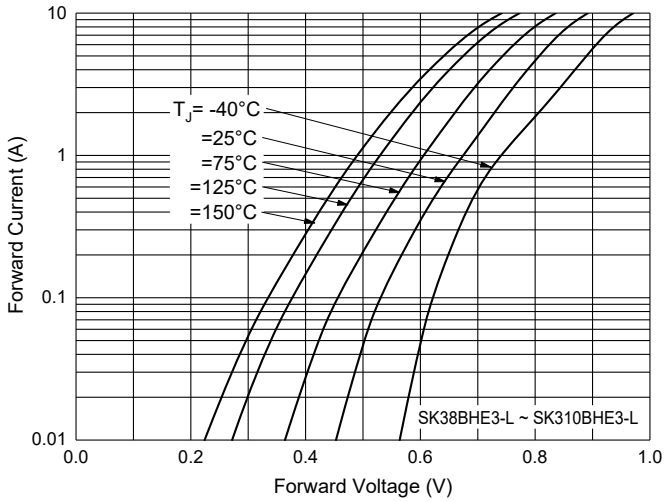


Fig. 8 - Typical Reverse Leakage Characteristics

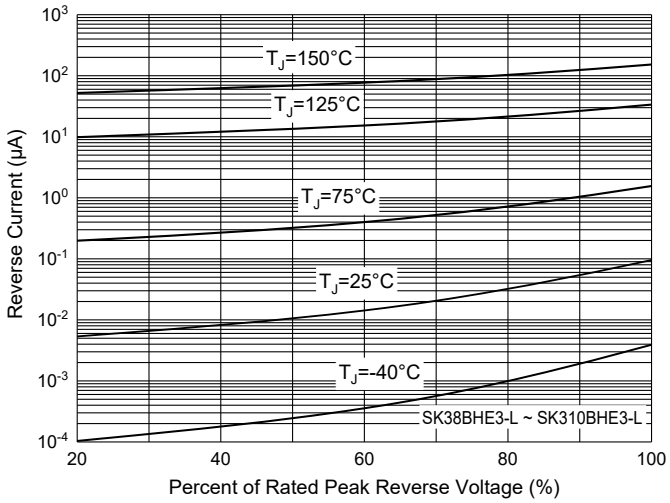


Fig. 9 - Typical Capacitance Characteristics

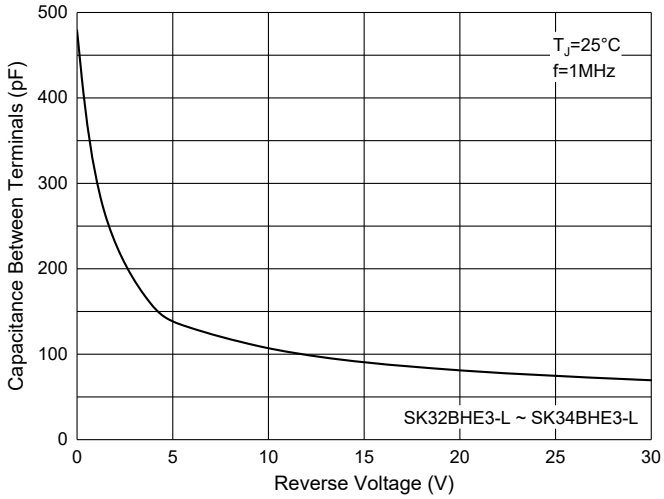


Fig. 10 - Typical Capacitance Characteristics

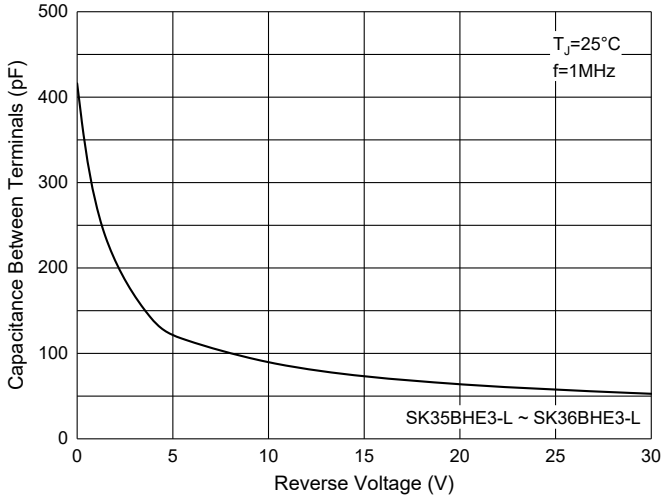
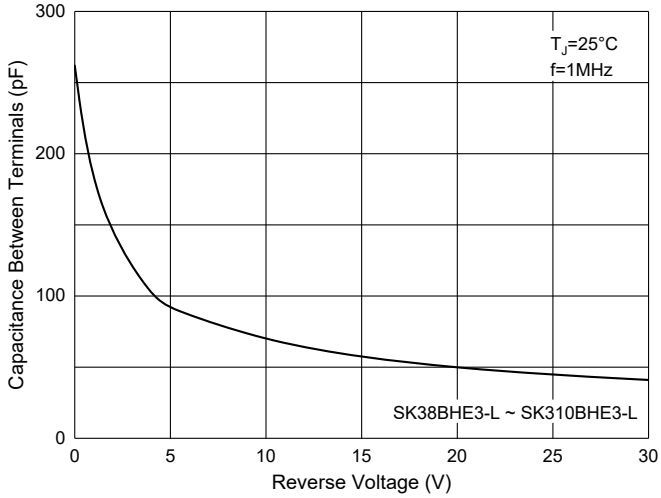


Fig. 11 - Typical Capacitance Characteristics



Ordering Information

Device	Packing
SK32BHE3-LTP ~ SK310BHE3-LTP	Tape&Reel:3Kpcs/Reel