

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)

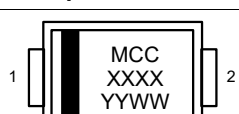

Maximum Ratings @ 25°C (Unless Otherwise Specified)

Parameter	Symbol	Value							Unit
		SK32BHE3-L	SK33BHE3-L	SK34BHE3-L	SK35BHE3-L	SK36BHE3-L	SK38BHE3-L	SK310BHE3-L	
Peak Repetitive Reverse Voltage	V_{RRM}								V
Working Peak Reverse Voltage	V_{RWM}	20	30	40	50	60	80	100	
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 ² s

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

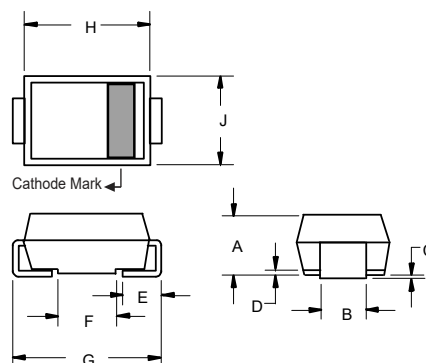
Internal Structure

Pin	Description	Simplified Outline	Graphic Symbol
1	Cathode	 <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.

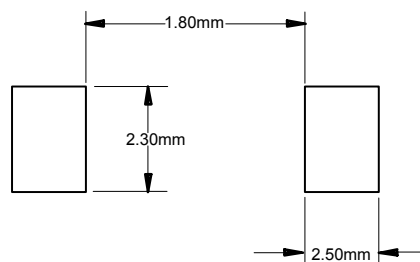
3 Amp Surface Mount Schottky Rectifier 20 to 100 Volts

DO-214AA (SMB) (LEAD FRAME)



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		150	°C
T_{stg}	Storage Temperature Range		-55		150	°C
$R_{th(J-L)}$	Thermal Resistance from Junction to Lead	Note 1		18		°C/W
$R_{th(J-A)}$	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 SK35BHE3-L ~ SK36BHE3-L SK38BHE3-L ~ SK310BHE3-L	V_F	$I_F=3A; T_J=25^\circ C$			0.50 0.75 0.85	V
Reverse Current SK32BHE3-L ~ SK36BHE3-L SK38BHE3-L ~ SK310BHE3-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 30 0.01 0.2	mA
Junction Capacitance SK32BHE3-L ~ SK34BHE3-L SK35BHE3-L ~ SK36BHE3-L SK38BHE3-L ~ SK310BHE3-L	C_J	$V_R=4V; f=1MHz; T_J=25^\circ C$		150 135 95		pF

Curve Characteristics

Fig. 1 - Forward Current Derating Curve

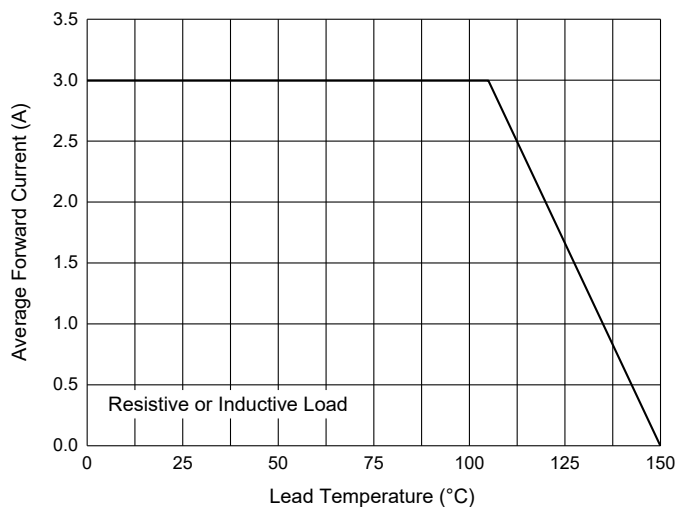


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

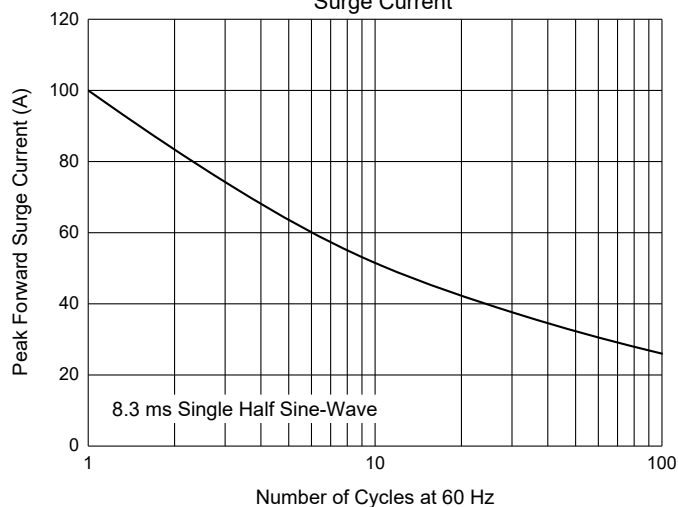


Fig. 3 - Typical Forward Characteristics

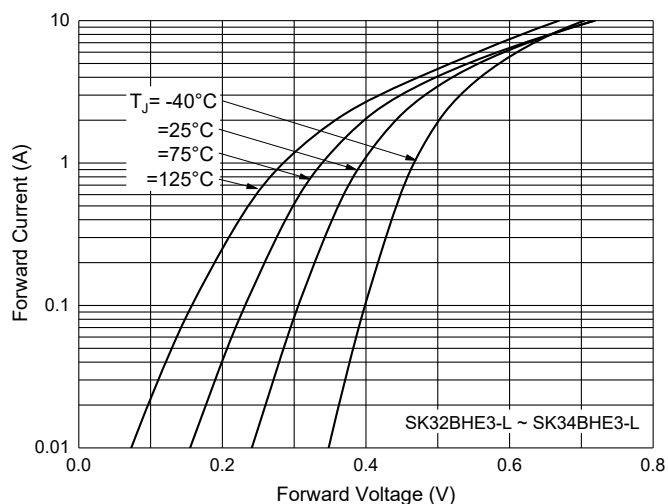


Fig. 4 - Typical Reverse Leakage Characteristics

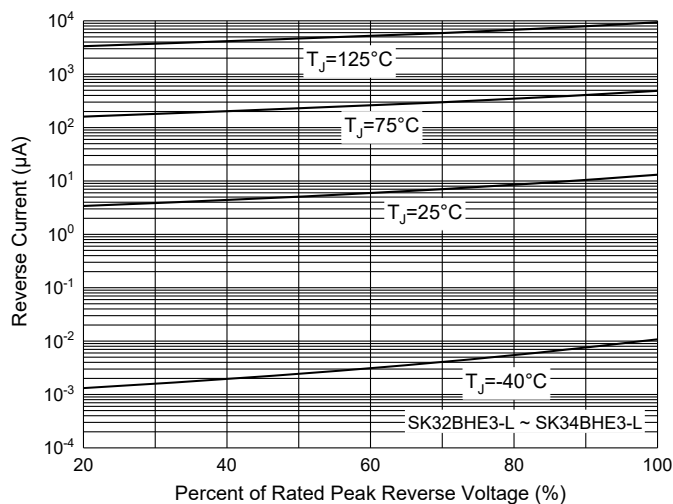


Fig. 5 - Typical Forward Characteristics

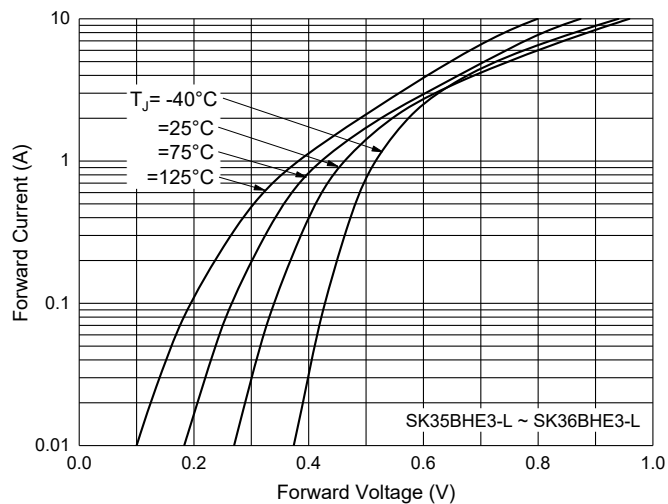
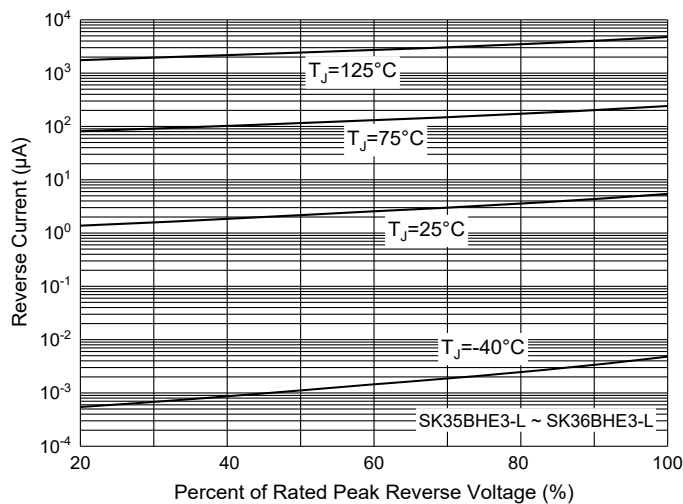


Fig. 6 - Typical Reverse Leakage Characteristics



Curve Characteristics

Fig. 7 - Typical Forward Characteristics

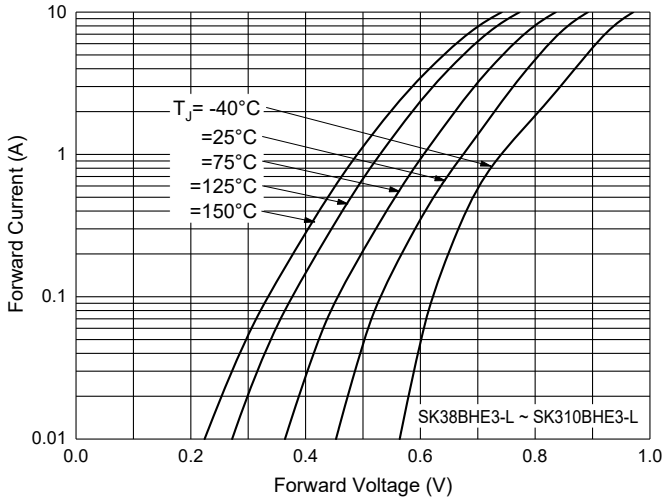


Fig. 8 - Typical Reverse Leakage Characteristics

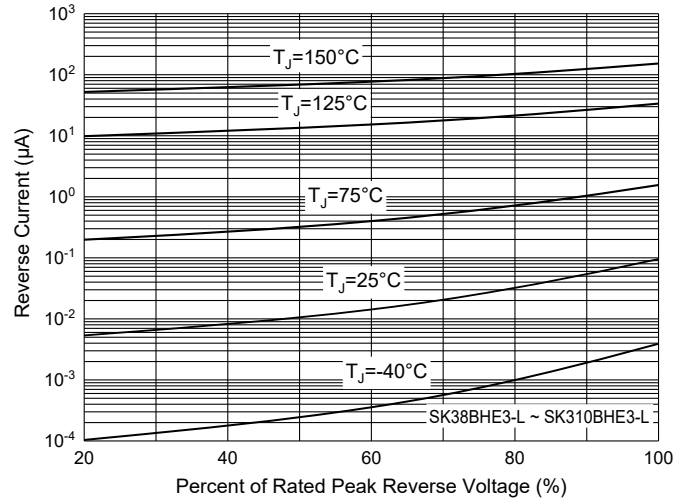


Fig. 9 - Typical Capacitance Characteristics

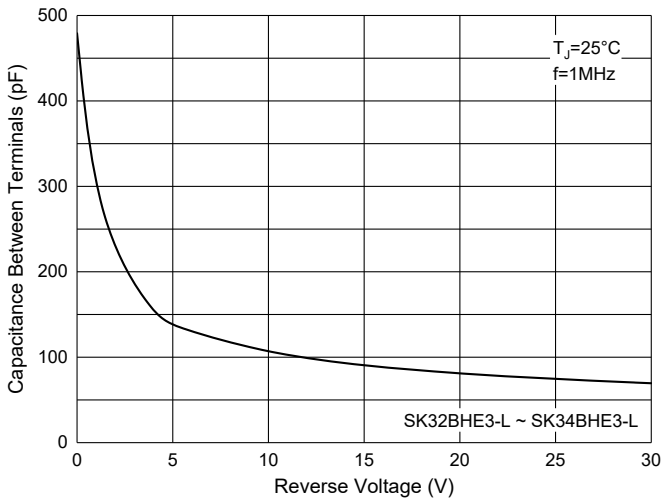


Fig. 10 - Typical Capacitance Characteristics

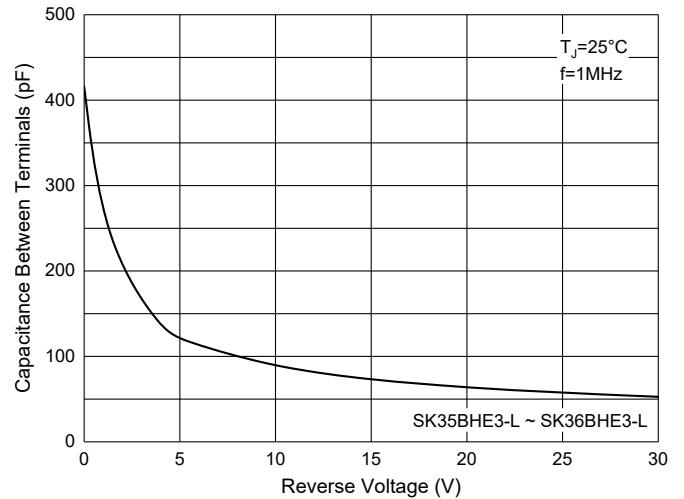
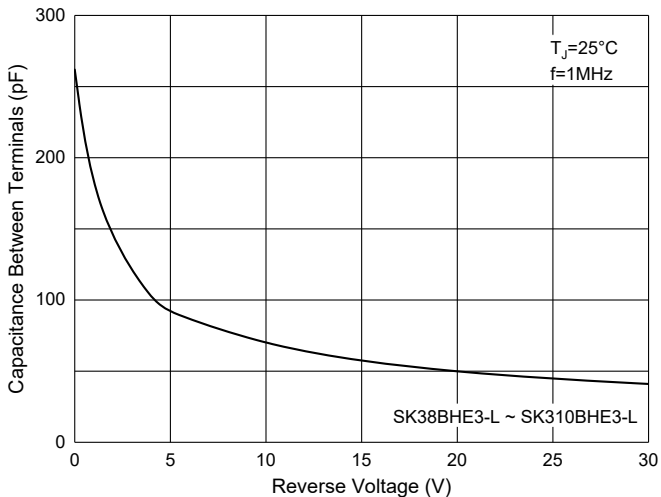


Fig. 11 - Typical Capacitance Characteristics



Ordering Information

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

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