Features

- Halogen Free. "Green" Device (Note 1)
- AEC-Q101 Qualified
- High Current Capability
- For Surface Mount Application
- 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)

5 Amp Surface Mount Schottky Rectifier 20 to 100 Volts

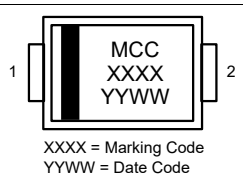
Maximum Ratings @ 25°C (Unless Otherwise Specified)

Parameter	Symbol	Value							Unit
		SK52A HE3-L	SK53A HE3-L	SK54A HE3-L	SK55A HE3-L	SK56A HE3-L	SK58A HE3-L	SK510A 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	$I_{F(AV)}$	5							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

Marking Code

Part Number	Marking Code
SK52AHE3-L	SK52A
SK53AHE3-L	SK53A
SK54AHE3-L	SK54A
SK55AHE3-L	SK55A
SK56AHE3-L	SK56A
SK58AHE3-L	SK58A
SK510AHE3-L	SK510A

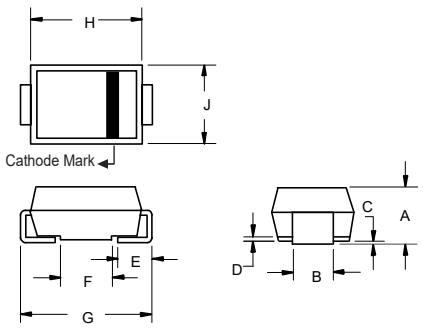
Internal Structure

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.

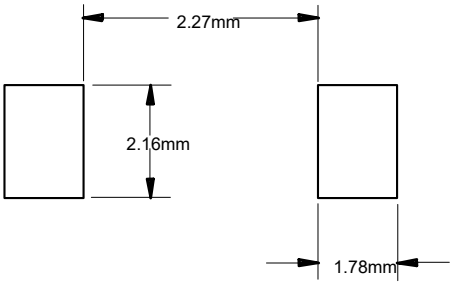
2. High temperature solder exemption applied, see EU directive annex 7a.

SMA (DO-214AC)



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.075	0.096	1.90	2.44	
B	0.050	0.064	1.27	1.63	
C	0.002	0.008	0.051	0.203	
D	---	0.020	---	0.51	
E	0.030	0.060	0.76	1.52	
F	0.065	0.091	1.65	2.32	
G	0.189	0.220	4.80	5.59	
H	0.157	0.187	4.00	4.75	
J	0.090	0.115	2.25	2.92	

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
$Rth_{(J-L)}$	Thermal Resistance from Junction to Lead	Note 1		25		°C/W
$Rth_{(J-A)}$	Thermal Resistance from Junction to Ambient	Note 1		80		°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 SK52AHE3-L ~ SK54AHE3-L SK55AHE3-L ~ SK56AHE3-L SK58AHE3-L ~ SK510AHE3-L	V_F	I_F=5A;T_J=25°C			0.55 0.75 0.85	V
Reverse Current	I_R	at Rated V_R;T_J=25°C at Rated V_R;T_J=125°C			0.1 20	mA
Junction Capacitance SK52AHE3-L ~ SK54AHE3-L SK55AHE3-L ~ SK56AHE3-L SK58AHE3-L ~ SK510AHE3-L	C_J	V_R=4V;f=1MHz;T_J=25°C		265 215 150		pF

Curve Characteristics

Fig. 1 - Forward Current Derating Curve

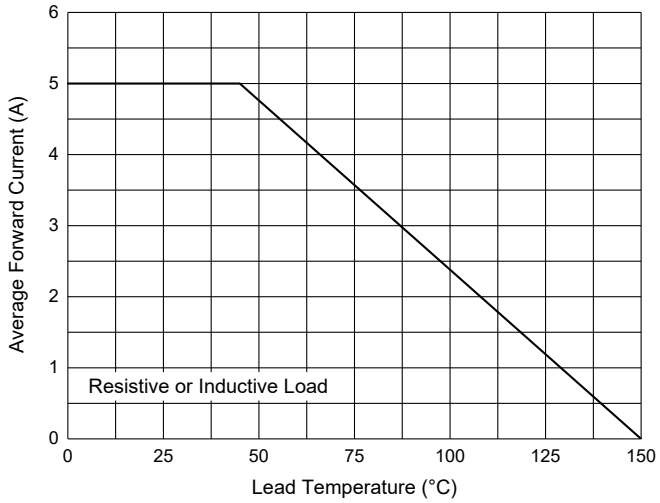


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

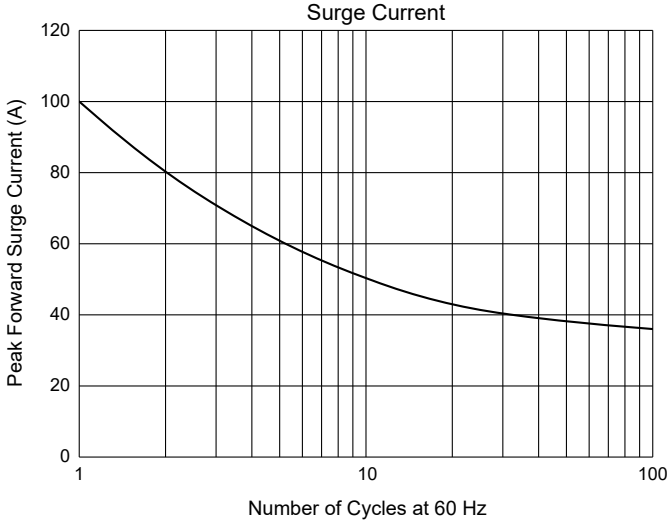


Fig. 3 - Typical Forward Characteristics

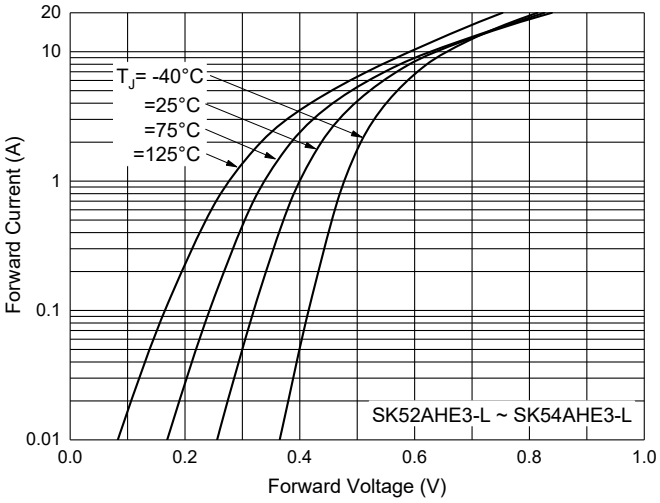


Fig. 4 - Typical Reverse Leakage Characteristics

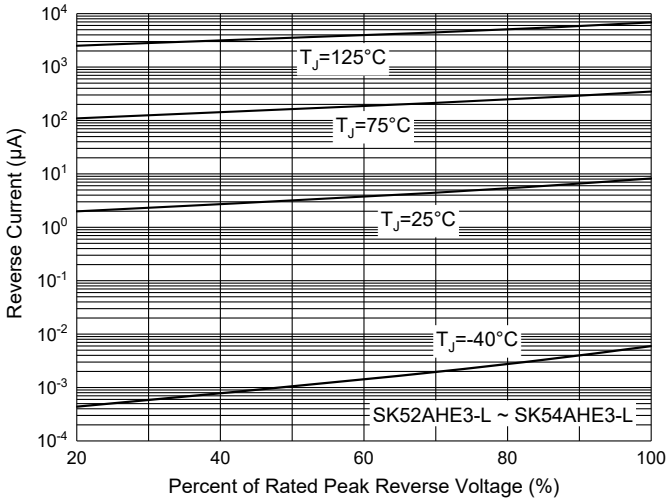


Fig. 5 - Typical Forward Characteristics

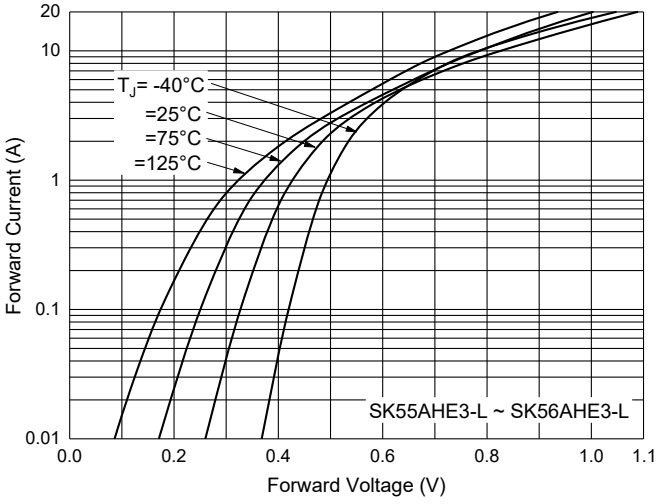
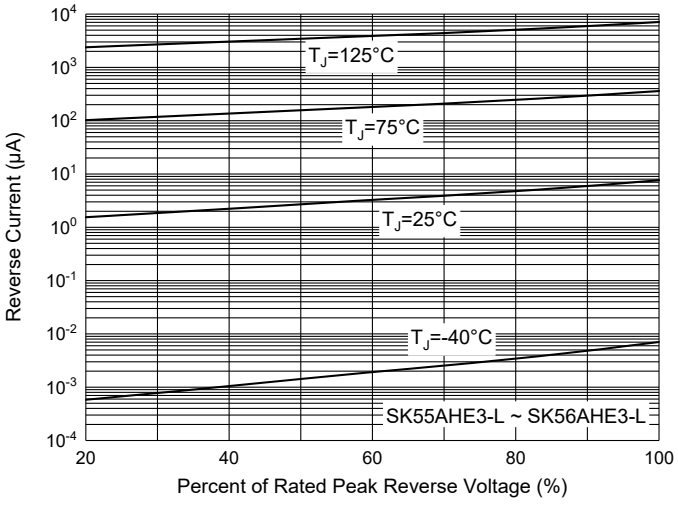


Fig. 6 - Typical Reverse Leakage Characteristics



Curve Characteristics

Fig. 7 - Typical Forward Characteristics

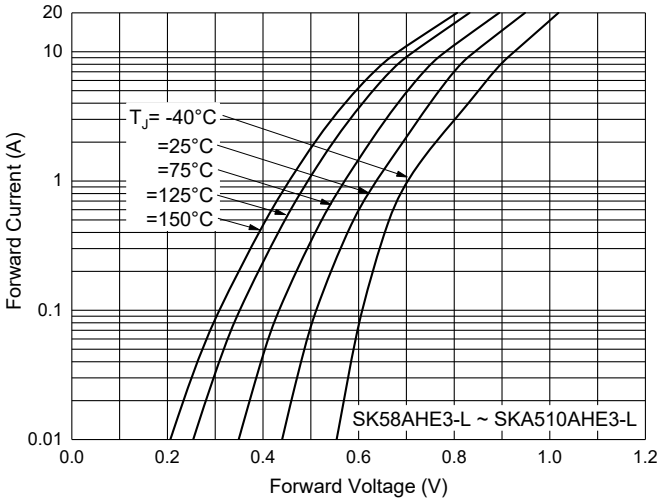


Fig. 8 - Typical Reverse Leakage Characteristics

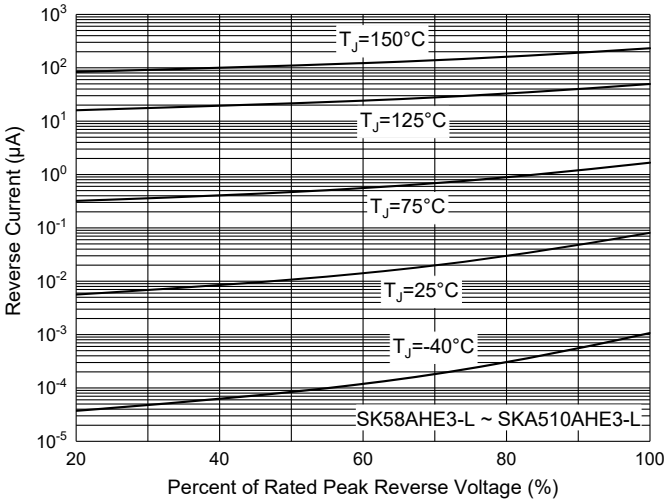


Fig. 9 - Capacitance Characteristics

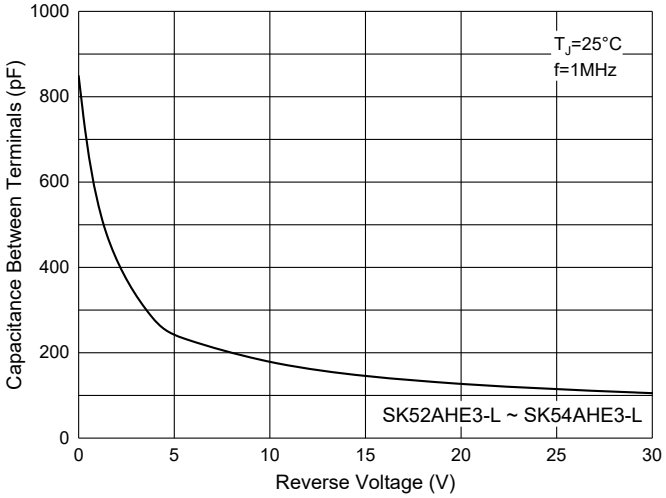


Fig. 10 - Capacitance Characteristics

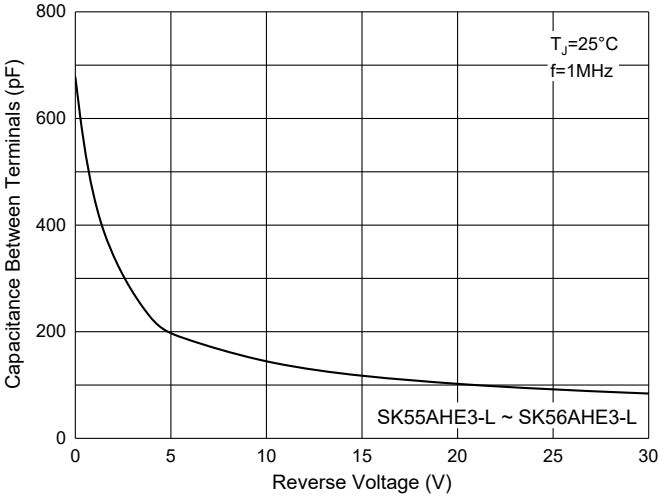
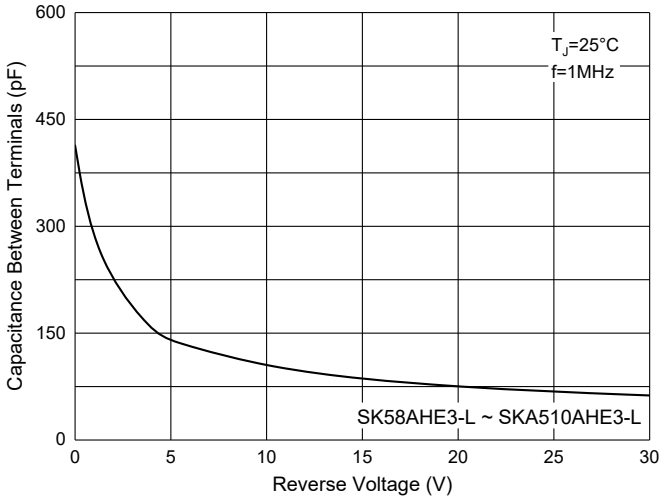


Fig. 11 - Capacitance Characteristics



Ordering Information

Device	Packing
SK52AHE3-LTP ~ SK510AHE3-LTP	Tape&Reel:5Kpcs/Reel

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Micro Commercial Components (MCC):

SK52AHE3-LTP SK53AHE3-LTP SK55AHE3-LTP SK58AHE3-LTP