

Features

- Halogen Free. "Green" Device (Note 1)
- 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)
- For Surface Mount Application

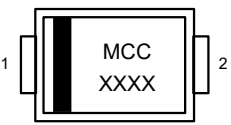

Maximum Ratings @ 25°C (Unless Otherwise Specified)

Parameter	Symbol	Value									Unit
		SK 52 A-L	SK 53 A-L	SK 54 A-L	SK 55 A-L	SK 56 A-L	SK 58 A-L	SK 510 A-L	SK 5150 A-L	SK 5200 A-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	$I_{F(AV)}$	5									A
Non-Repetitive Peak Surge Current @ 8.3ms Half Sine Wave	I_{FSM}	100									A
Current Squared Time @ $1ms \leq t \leq 8.3ms$	I^2t	41.5									A ² s

Marking Code

Part Number	Marking Code
SK52A-L	SK52A
SK53A-L	SK53A
SK54A-L	SK54A
SK55A-L	SK55A
SK56A-L	SK56A
SK58A-L	SK58A
SK510A-L	SK510A
SK5150A-L	SK5150A
SK5200A-L	SK5200A

Internal Structure

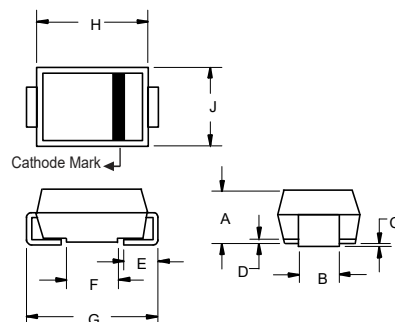
Pin	Description	Simplified Outline	Graphic Symbol
1	Cathode	 XXXX = Marking Code	
2	Anode		

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.

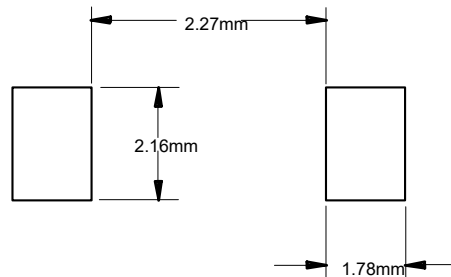
5 Amp
50 to 800 Volts

SMA (DO-214AC)



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.079	0.096	2.00	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
$R_{th(J-L)}$	Thermal Resistance from Junction to Lead	Note 1		23		°C/W
$R_{th(J-A)}$	Thermal Resistance from Junction to Ambient	Note 1		80		°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 SK52A-L ~ SK54A-L SK55A-L ~ SK56A-L SK58A-L ~ SK510A-L SK5150A-L ~ SK5200A-L	V_F	$I_F=5A; T_J=25^{\circ}C$			0.55 0.70 0.85 0.90	V
Reverse Current SK52A-L ~ SK56A-L SK58A-L ~ SK5200A-L	I_R	at Rated $V_R; T_J=25^{\circ}C$ at Rated $V_R; T_J=100^{\circ}C$ at Rated $V_R; T_J=25^{\circ}C$ at Rated $V_R; T_J=100^{\circ}C$			0.1 10 0.01 1	mA
Junction Capacitance SK52A-L ~ SK54A-L SK55A-L ~ SK56A-L SK58A-L ~ SK510A-L SK5150A-L ~ SK5200A-L	C_J	$V_R=4V; f=1MHz; T_J=25^{\circ}C$		275 195 135 95		pF

Curve Characteristics

Fig. 1 - Forward Current Derating Curve

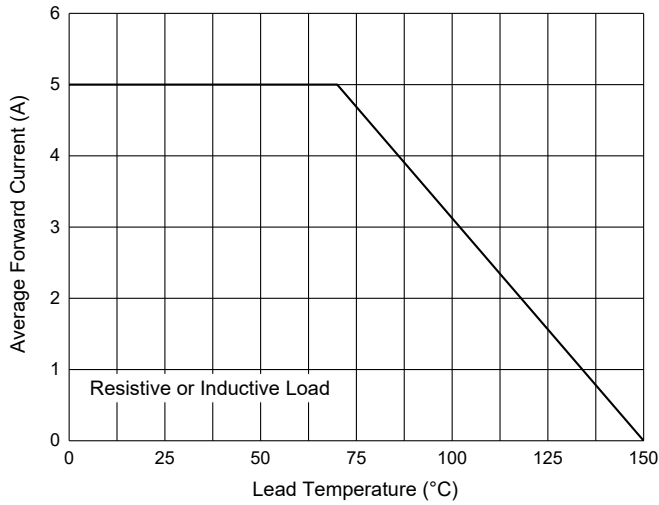


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

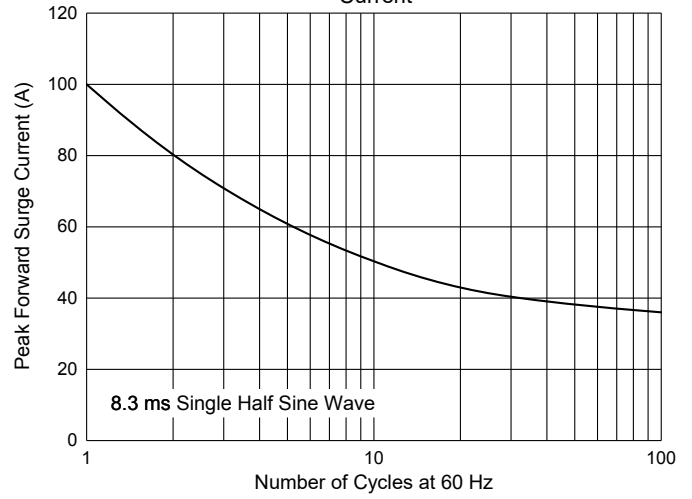


Fig. 3 - Typical Forward Characteristics

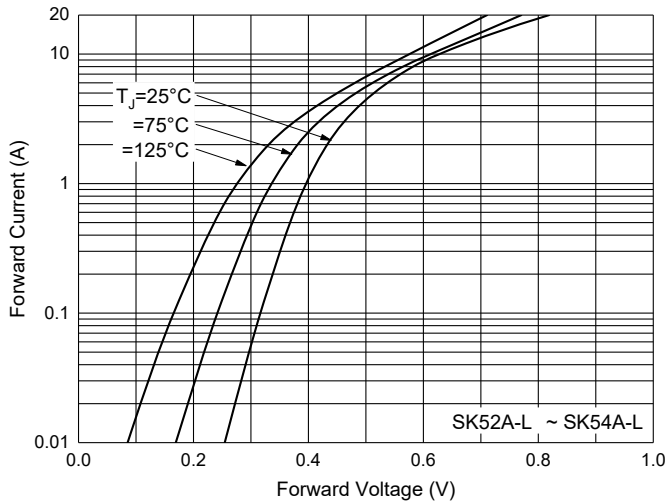


Fig. 4 - Typical Reverse Leakage Characteristics

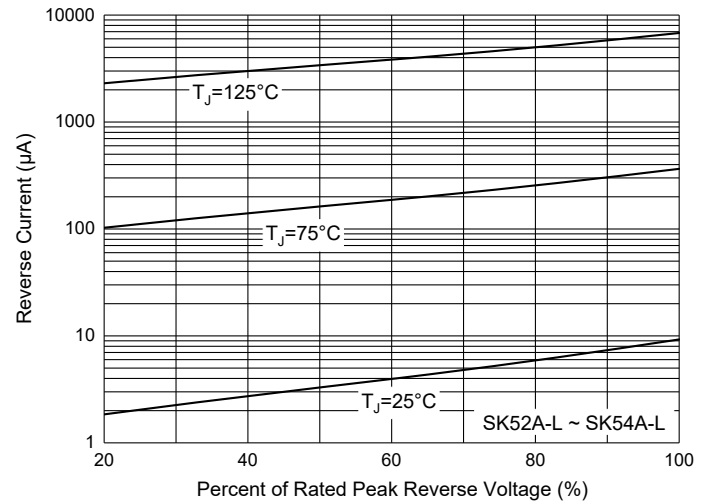


Fig. 5 - Typical Forward Characteristics

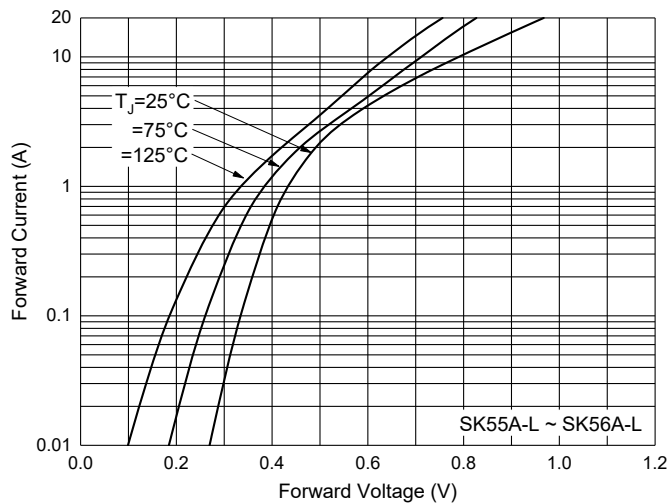
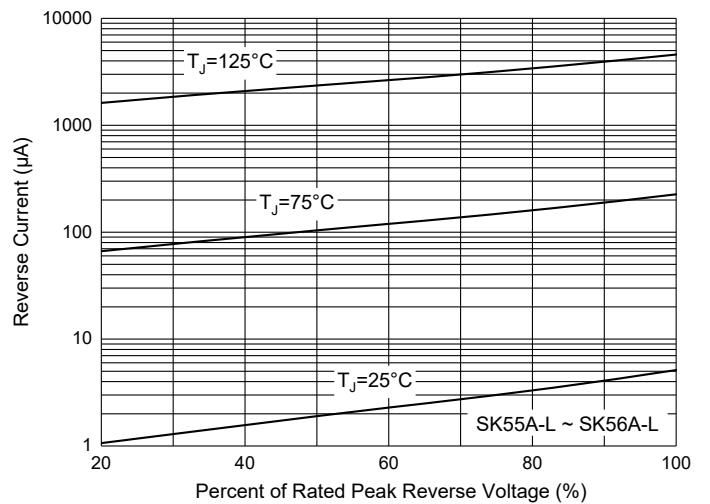


Fig. 6 - Typical Reverse Leakage Characteristics



Curve Characteristics

Fig. 7 - Typical Forward Characteristics

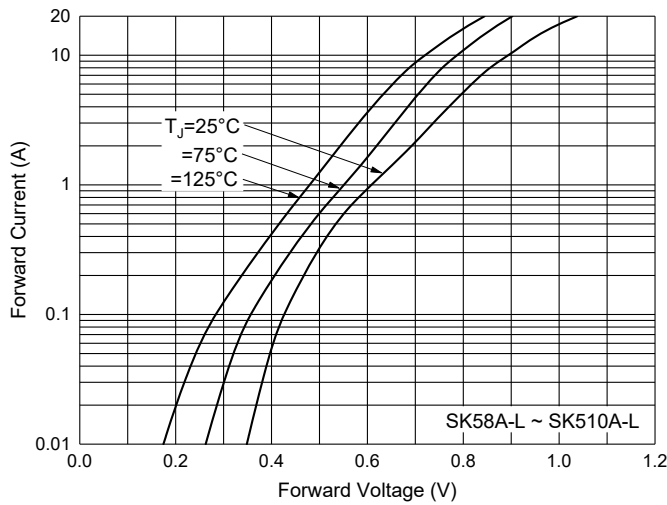


Fig. 8 - Typical Reverse Leakage Characteristics

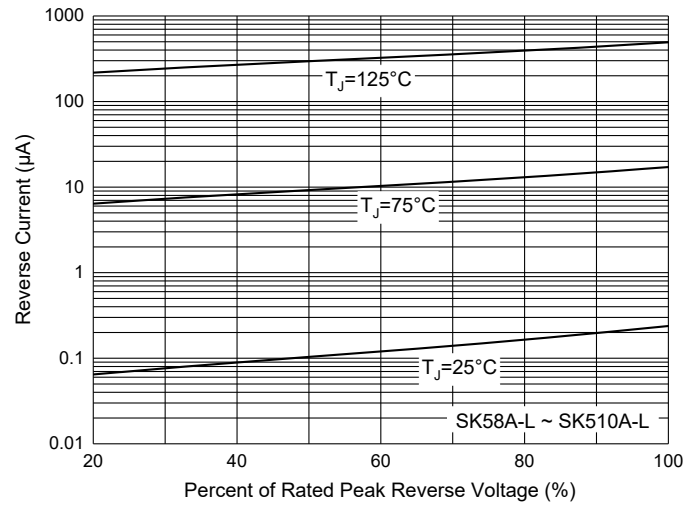


Fig. 9 - Typical Forward Characteristics

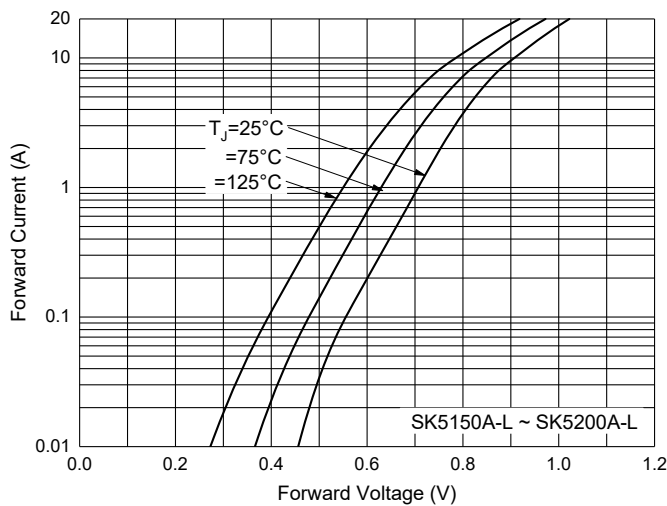


Fig. 10 - Typical Reverse Leakage Characteristics

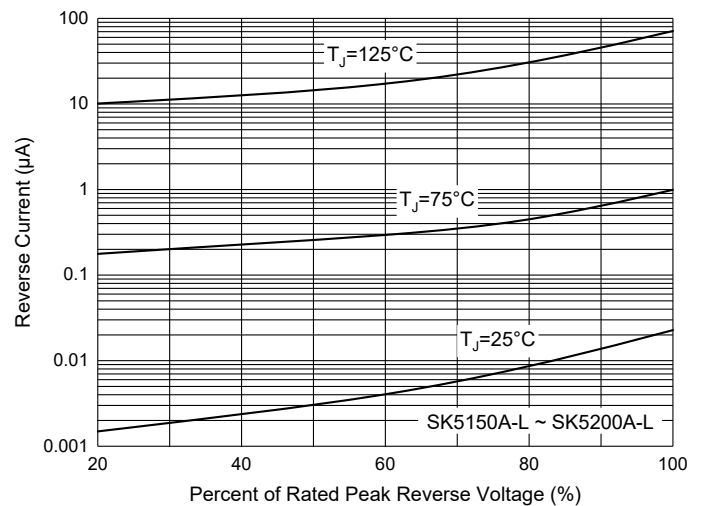


Fig. 11 - Typical Capacitance Characteristics

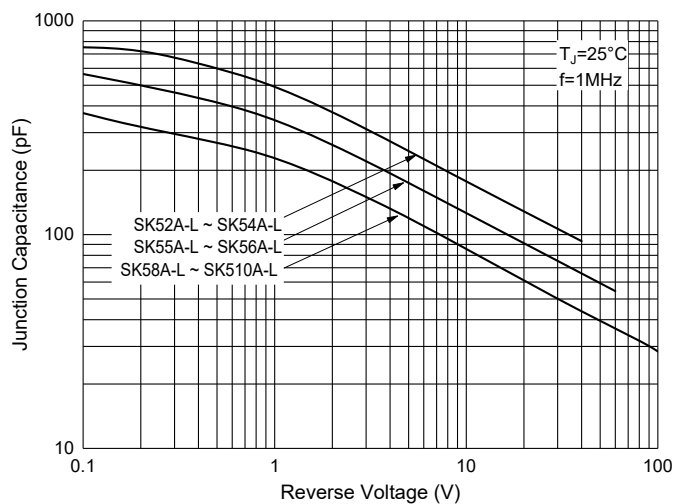
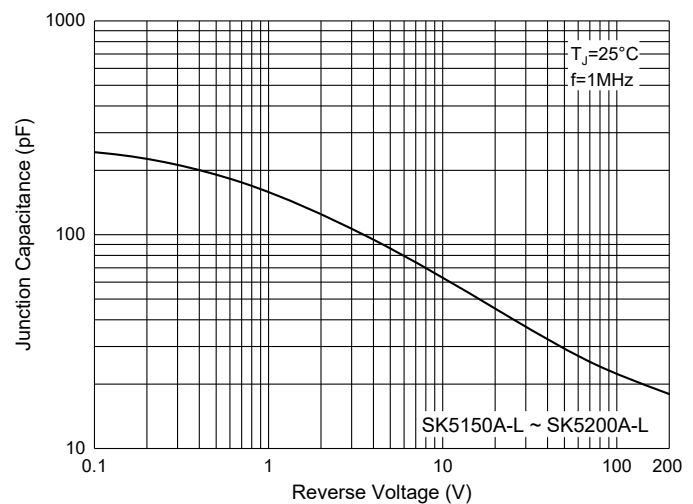


Fig. 12 - Typical Capacitance Characteristics



Ordering Information

Device	Packing
SK52A-LTP ~ SK5200A-LTP	Tape&Reel:5Kpcs/Reel

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