

## Features

- Halogen Free. "Green" Device (Note 1)
- Guard Ring Protection
- 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
		SS 22-L	SS 23-L	SS 24-L	SS 25-L	SS 26-L	SS 28-L	SS 210-L	SS 2150-L	SS 220-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	$I_{F(AV)}$	2										A
Non-Repetitive Peak Surge Current @ 8.3ms Half Sine Wave	$I_{FSM}$	50										A
Current Squared Time @ 1ms ≤ t ≤ 8.3ms	$I^2t$	10.375										A <sup>2</sup> s

## Marking code

Part Number	Marking Code
SS22-L	SS22
SS23-L	SS23
SS24-L	SS24
SS25-L	SS25
SS26-L	SS26
SS28-L	SS28
SS210-L	SS210
SS2150-L	S2150
SS220-L	SS220

## Internal Structure

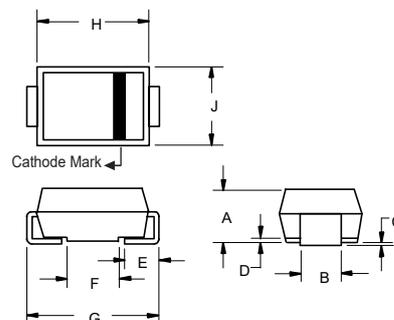
Pin	Description	Simplified Outline	Graphic Symbol
1	Cathode		
2	Anode		

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.

**& Amp**  
**Gi fZUW' Aci bh**  
**GW ch\_mIF YWjZyF**  
**&0 to &00 Volts**

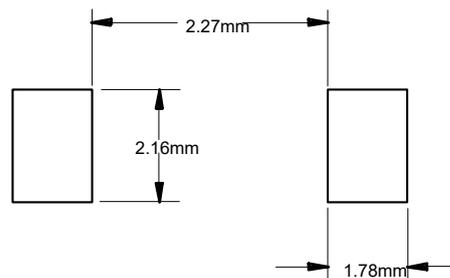
## SMA (DO-214AC)



### DIMENSIONS

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 <sub>J</sub>	Operating Junction Temperature Range	SS22-L ~ SS24-L	-55		125	°C
T <sub>J</sub>	Operating Junction Temperature Range	SS25-L ~ SS220-L	-55		150	°C
T <sub>stg</sub>	Storage Temperature Range		-55		150	°C
R <sub>th(J-L)</sub>	Thermal Resistance from Junction to Lead	Note 1		20		°C/W
R <sub>th(J-A)</sub>	Thermal Resistance from Junction to Ambient	Note 1		75		°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 SS22-L ~ SS24-L SS25-L ~ SS26-L SS28-L ~ SS210-L SS2150-L ~ SS220-L	V <sub>F</sub>	I <sub>F</sub> =2A; T <sub>J</sub> =25°C			0.50 0.70 0.85 0.90	V
Reverse Current SS22-L ~ SS26-L SS28-L ~ SS220-L	I <sub>R</sub>	at Rated V <sub>R</sub> ; T <sub>J</sub> =25°C at Rated V <sub>R</sub> ; T <sub>J</sub> =125°C at Rated V <sub>R</sub> ; T <sub>J</sub> =25°C at Rated V <sub>R</sub> ; T <sub>J</sub> =125°C			0.1 20 0.01 5	mA
Junction Capacitance SS22-L ~ SS24-L SS25-L ~ SS26-L SS28-L ~ SS210-L SS2150-L ~ SS220-L	C <sub>J</sub>	V <sub>R</sub> =4V; f=1MHz; T <sub>J</sub> =25°C		125 90 60 50		pF

**Curve Characteristics**

Fig. 1 - Forward Current Derating Curve

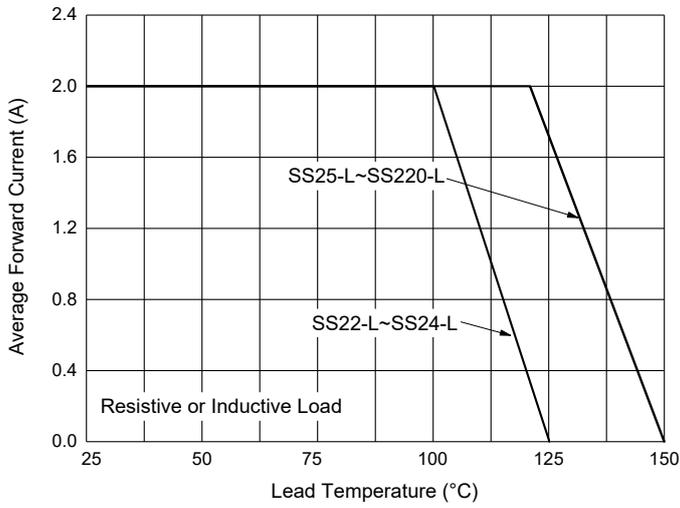


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

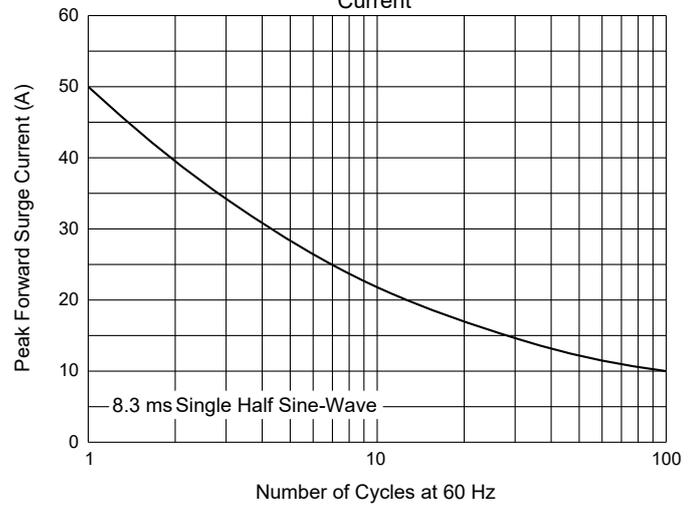


Fig. 3 - Typical Forward Characteristics

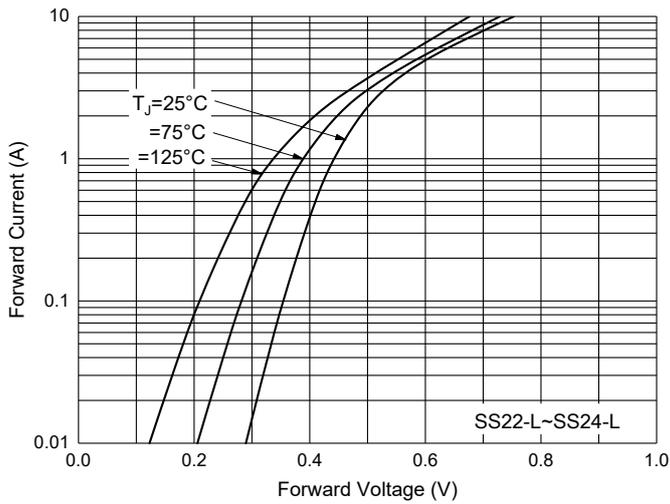


Fig. 4 - Typical Reverse Leakage Characteristics

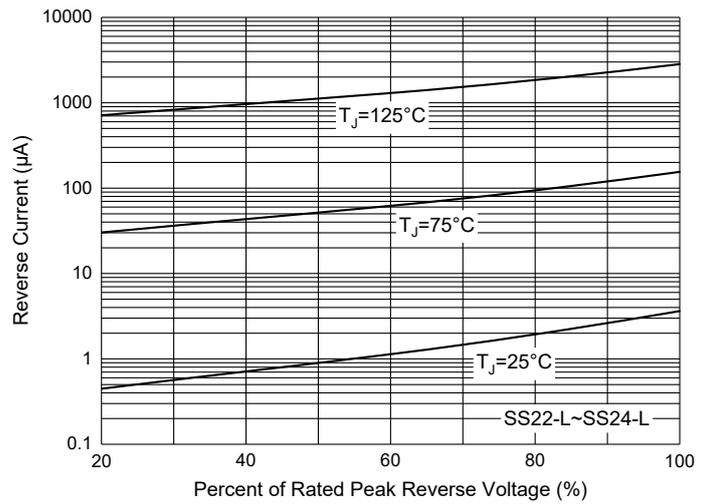


Fig. 5 - Typical Forward Characteristics

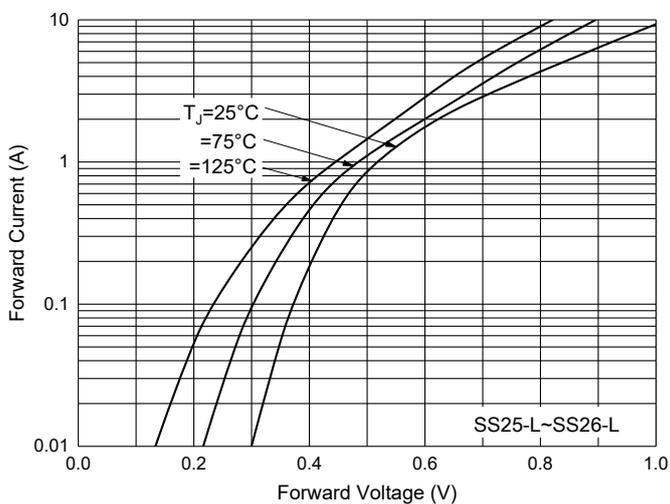
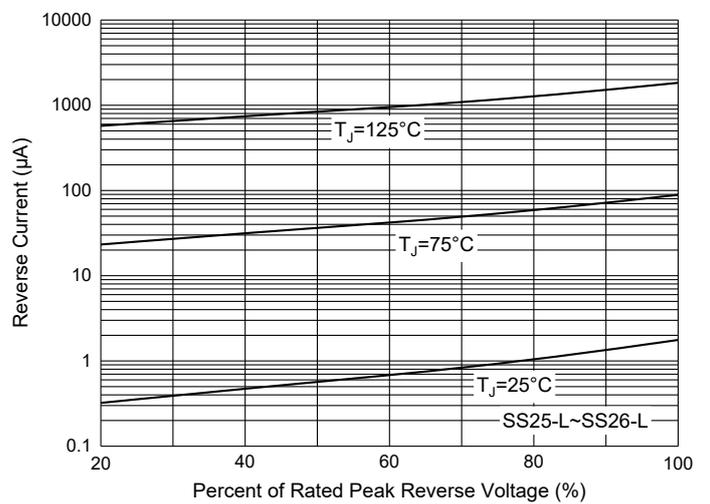


Fig. 6 - Typical Reverse Leakage Characteristics



**Curve Characteristics**

Fig. 7 - Typical Forward Characteristics

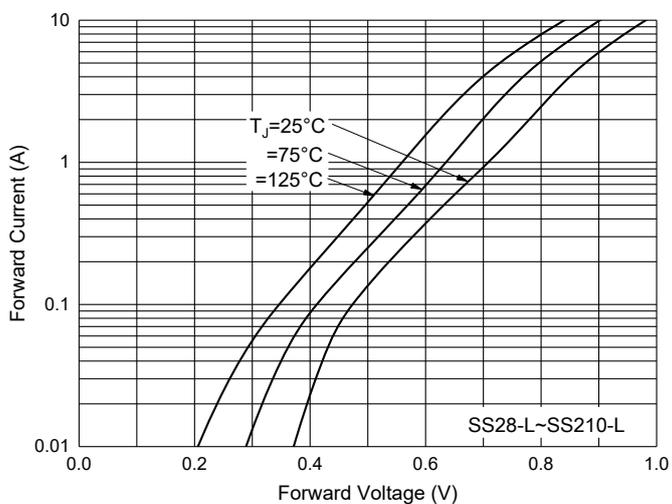


Fig. 8 - Typical Reverse Leakage Characteristics

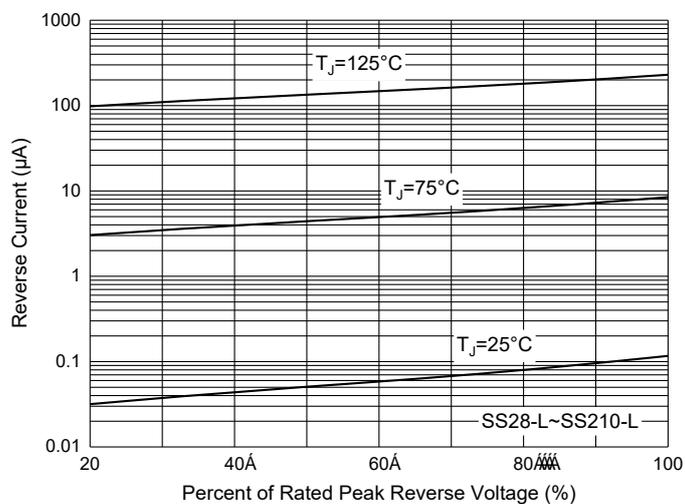


Fig. 9 - Typical Forward Characteristics

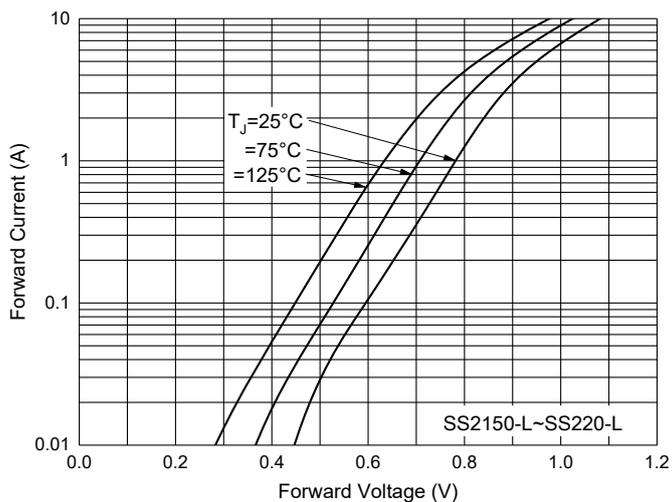


Fig. 10 - Typical Reverse Leakage Characteristics

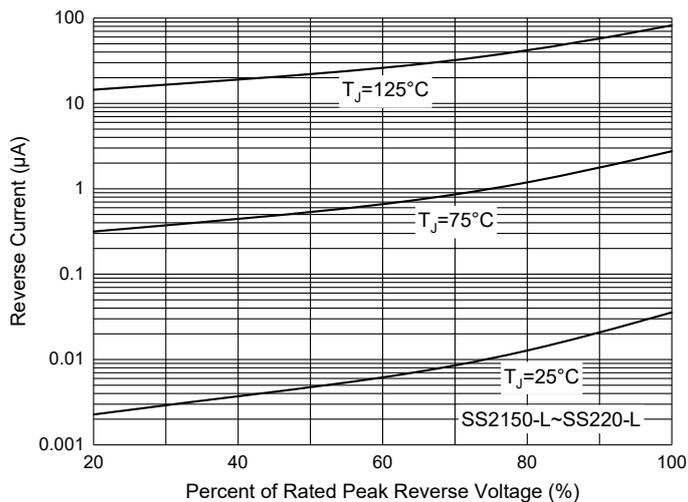
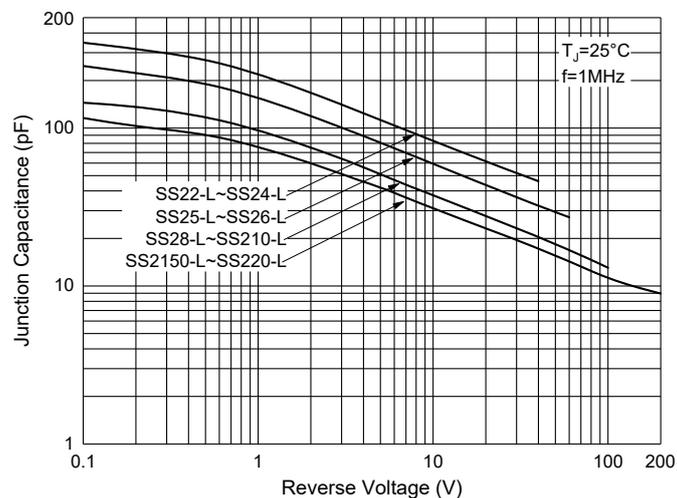


Fig. 11 - Typical Capacitance Characteristics



## Ordering Information

Device	Packing
SS22-LTP ~ SS220-LTP	Tape&Reel:5Kpcs/Reel

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