



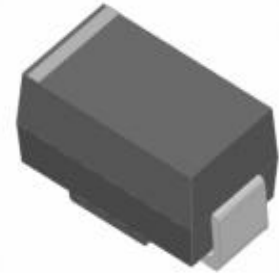
SS54L THRU SS520L

5.0 AMP Surface Mount Schottky Barrier Rectifier

1. Features

- Schottky Barrier Chip
- Low Power Loss, High Efficiency
- Ideally Suited for Automatic Assembly
- Surge Overload Rating to Peak

SMA



2. Mechanical Data

- Case: Molded Plastic, SMA
- Epoxy: UL 94V-0 rate flame retardant.
- Terminals: Plated Leads Solderable per MIL-STD-750, Method-2026.
- Mounting Position : Any.
- Making: Type Number

3. Maximum Ratings

Electrical Characteristics Rating at 25°C ambient temperature unless otherwise specified.

Characteristic	Symbol	SS54L	SS545L	SS55L	SS56L	SS58L	SS510L	SS515L	SS520L	Unit
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	40	45	50	60	80	100	150	200	V
Maximum RMS Voltage	V_{RMS}	28	31	35	42	56	70	105	140	V
Maximum DC Blocking Voltage	V_{DC}	40	45	50	60	80	100	150	200	V
Average Rectified Output Current @ $T_L=100^\circ\text{C}$	$I_{F(AV)}$	5.0								A
Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	110								A
I^2t Rating for Fusing ($t < 8.3\text{ms}$)	I^2t	50.22								A^2S
Maximum Instantaneous Forward Voltage @ $I_F=5\text{A}$	V_{FM}	0.45		0.50		0.60		0.85		V
Maximum DC reverse current @ $T_A=25^\circ\text{C}$	I_R	0.2				0.10				μA
at rated DC blocking voltage @ $T_A=100^\circ\text{C}$		10				5				
Typical Junction Capacitance (Note 1)	C_j	300				180				pF
Typical Thermal Resistance	$R_{\theta JA}$	110								$^\circ\text{C}/\text{W}$
Operating Temperature Range	T_J	-55 to +150								$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55 to +150								$^\circ\text{C}$

Note:

1. Measured at 1.0 MHz and Applied reverse Voltage of 4.0V D.C



4. Rating And Characteristic Curves

Fig.1 Forward Current Derating Curve

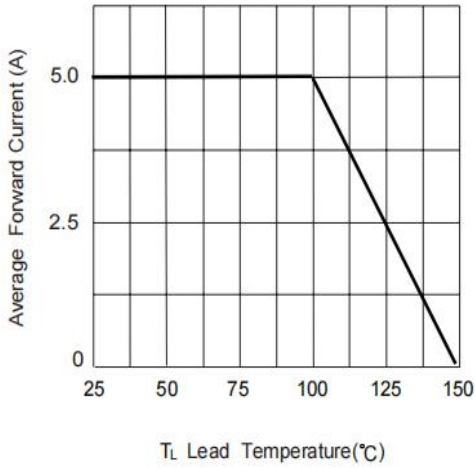


Fig.2 Typical Forward Characteristics

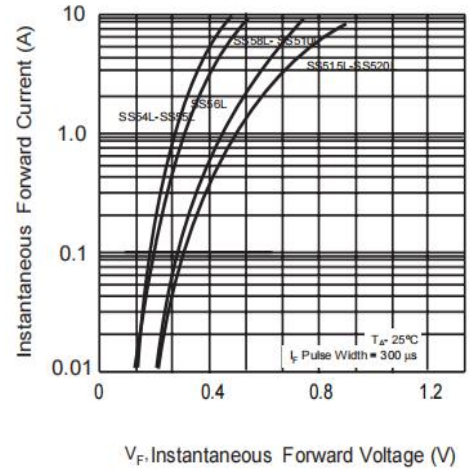


Fig.3 Forward Surge Current Capability

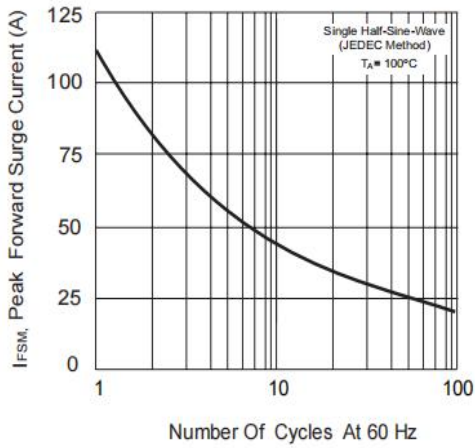
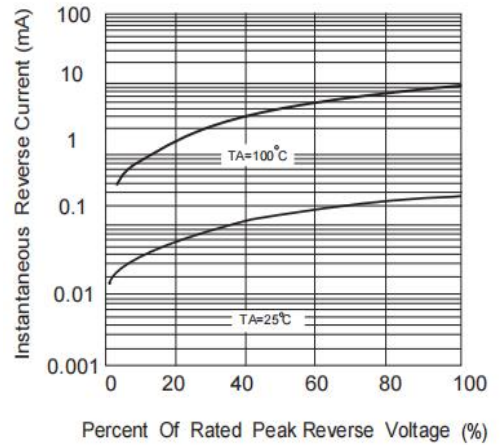


Fig.4 Typical Reverse Characteristics

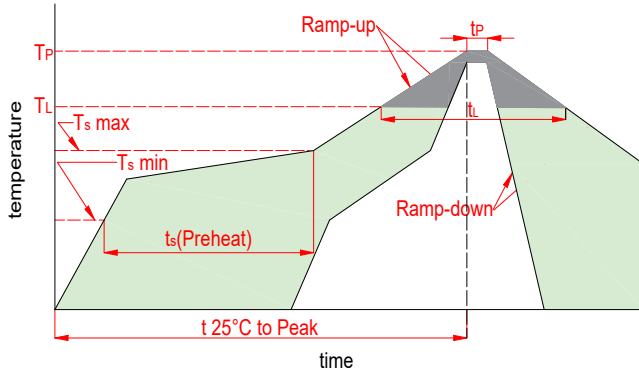




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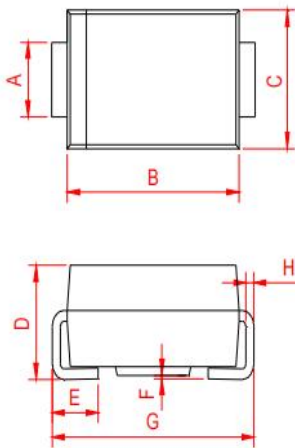
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5. Soldering Parameters



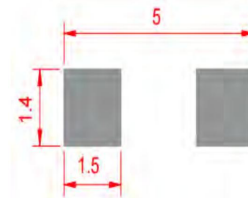
Reflow Condition		Lead-free
Pre Heat	Temp. min(T_s (min))	150°C
	Temp. max(T_s (min))	200°C
	Time(min to max)(t_s)	60~120s
Aver. ramp up rate(Liquidus Temp.)(T_L)to peak		3°C/s max
T_s (max) to T_L -Ramp-up Rate		3°C/s max
Reflow	Temp. (T_L)(Liquidus)	217°C
	Temp. (t_L)(Liquidus)	60~150s
Peak Temp. (T_p)		260 ^{+0/-5} °C
Time within actual peak Temp. (t_p)		30s max
Ramp-down Rate		6°C/s max
Time 25°C to peak Tempe. (T_p)		8 minutes max
Do not exceed		260°C

6. Dimensions

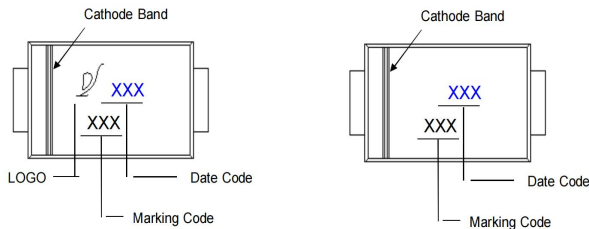


Dimensions	Inches		Millimeters	
	Min	Max	Min	Max
A	0.051	0.059	1.300	1.500
B	0.157	0.181	4.000	4.600
C	0.094	0.110	2.400	2.800
D	0.079	0.103	2.000	2.620
E	0.030	0.060	0.760	1.520
F	0.002	0.008	0.050	0.200
G	0.189	0.208	4.800	5.280
H	0.006	0.012	0.150	0.310

Mounting PAD Layout



7. Part Marking System



8. Package Information

Package	Tape Width (mm)	Reel Size		Quantity(pcs)
		mm	inch	
SMA(DO-214AC)	12	330	13	5000
SMA(DO-214AC)	12	330	13	7500



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