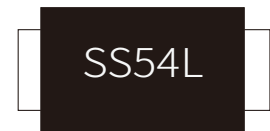


FEATURES

- | For Surface Mounted Applications
- | Built-in Strain Relief, ideal For Automated Placement
- | Low Forward Voltage
- | High Forward Surge Current Capability
- | The Plastic Package Carries Underwriters Laboratory Flammability Classification 94V-0



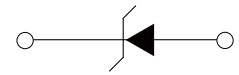
SMAF



Marking

MECHANICAL DATA

- | Case : Molded Plastic Body
- | Polarity : Polarity Symbol Marking On Body
- | Mounting Position : Any



Schematic Symbol

APPROVALS

RoHS	Compliance with 2011/65/EU
HF	Compliance with IEC61249-2-21:2003

MAXIMUM RATINGS (T_A=25°C)

Parameter	Symbol	Value	Unit
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	40	V
Maximum RMS Voltage	V _{RMS}	28	V
Maximum DC Blocking Voltage	V _{DC}	40	V
Maximum Average Forward Rectified Current at T _L =100°C	I _(AV)	5.0	A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed On Rated Load	I _{FSM}	120.0	A
Typical Thermal Resistance	R _{θJA}	65	°C/W
	R _{θJL}	20	°C/W
Operating Temperature Range	T _J	-55 to 125	°C
Storage Temperature Range	T _{STG}	-55 to 150	°C

MAXIMUM RATINGS ($T_A=25^{\circ}\text{C}$)

Parameter	Symbol	Typ.	Max.	Unit
Maximum Instantaneous Forward Voltage at 5.0A	V_F	0.43	0.48	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	$T_A=25^{\circ}\text{C}$	50	μA
		$T_A=100^{\circ}\text{C}$	5	mA

CHARACTERISTIC CURVES

Fig.1 Derating Curve Output Rectified Current

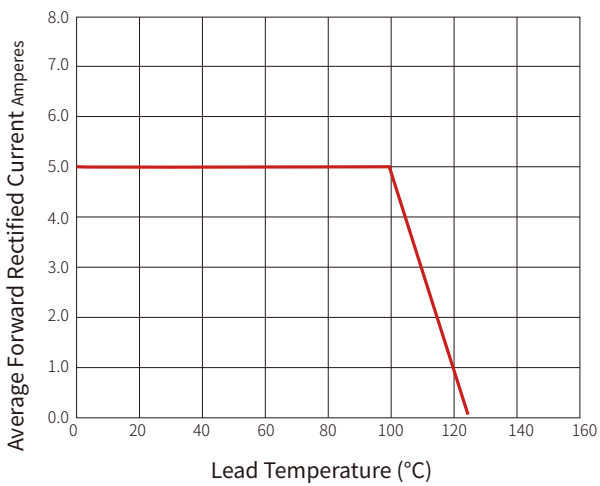


Fig.2 Maximum Non-repetitive Peak Forward Surge Current Perleg

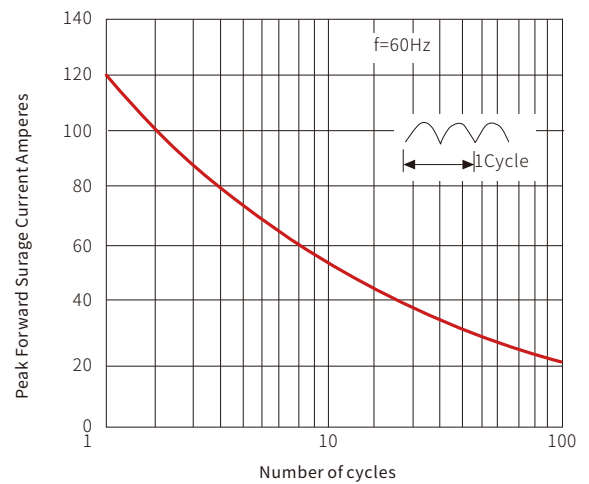
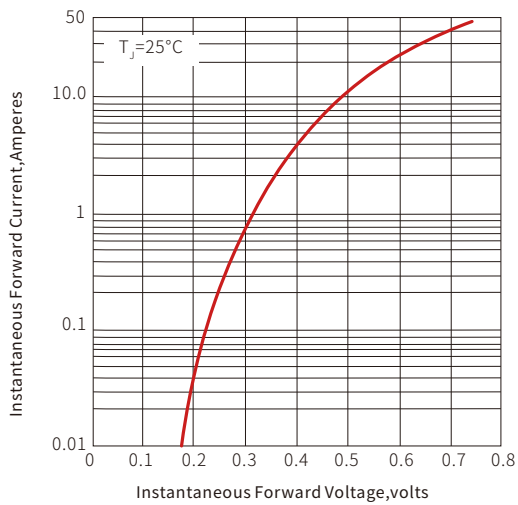
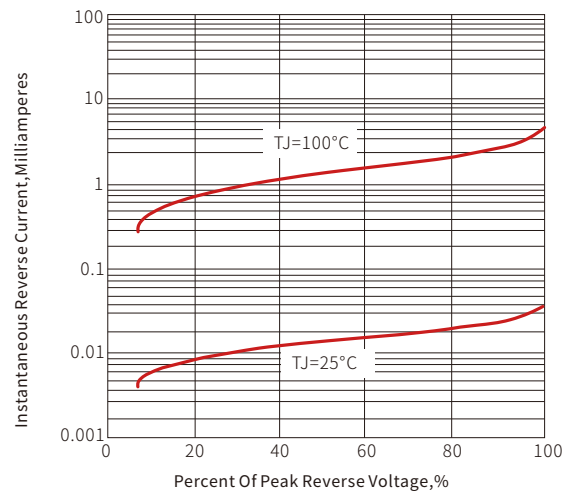
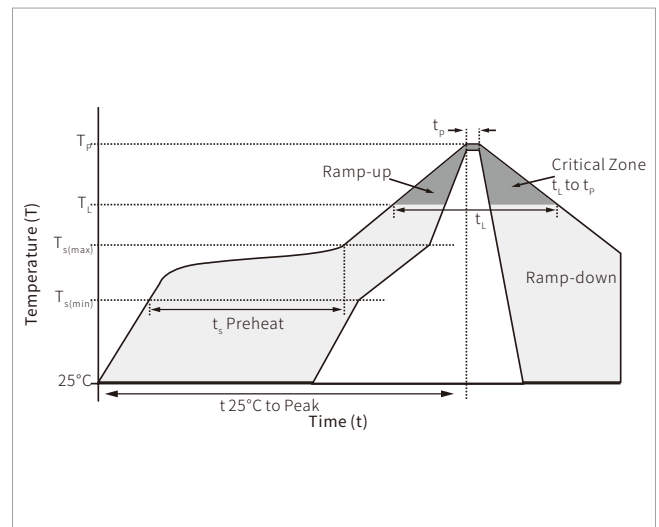


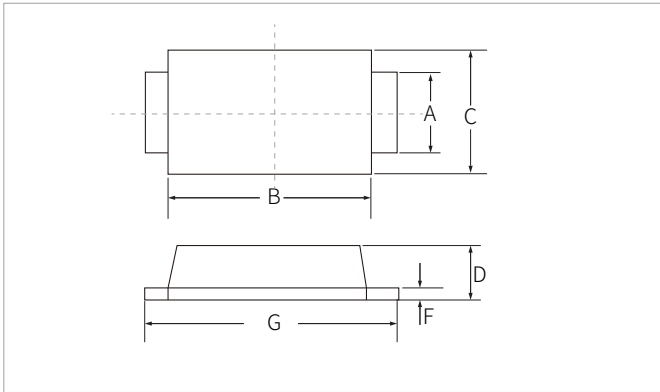
Fig.3 Typical Forward Voltage Characteristics

Fig.4 Typical Reverse Leakage Characteristics


SOLDERING PARAMETERS

Reflow Condition		Lead-free assembly
Pre Heat	Temperature Max ($T_{s(min)}$)	150°C
	Temperature Max ($T_{s(max)}$)	200°C
	Time (min to max) (t_s)	60 – 180 secs
Average ramp up rate (Liquidus Temp (T_L) to peak)		3°C/second max
$T_{s(max)}$ to T_L - Ramp-up Rate		3°C/second max
Reflow	Temperature (T_L) (Liquidus)	217°C
	Time (min to max) (t_L)	60 – 150 seconds
Peak Temperature (T_p)		260°C
Time within 5°C of actual peak Temperature (t_p)		20 – 40 seconds
Ramp-down Rate		6°C/second max
Time 25°C to peak Temperature (T_p)		8 minutes max.
Do not exceed		260°C

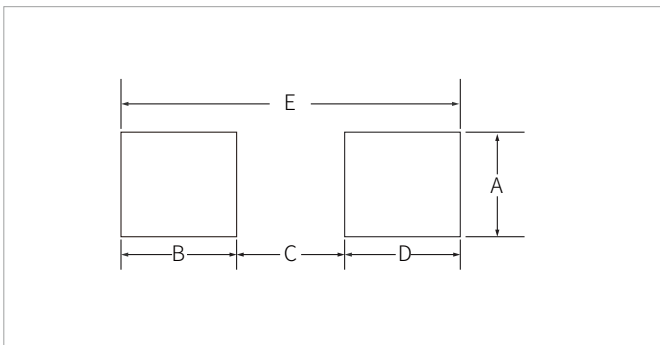


SMAF PACKAGE INFORMATION



Ref.	Millimeters		Inches	
	Min	Max	Min	Max
A	1.35	1.45	0.053	0.057
B	3.40	3.80	0.134	0.145
C	2.40	2.80	0.094	0.110
D	0.95	1.45	0.037	0.057
F	0.15	0.22	0.006	0.009
G	4.40	4.80	0.173	0.189

RECOMMENDED PAD LAYOUT DIMENSIONS



Ref.	Millimeters		Inches	
	Min	Max	Min	Max
A	1.70	-	0.067	-
B	2.50	-	0.098	-
C	-	1.5	-	0.059
D	2.50	-	0.098	-
E	6.50REF		0.256REF	

ORDERING INFORMATION

Part Number	Package	QTY/Reel	Reel Size
SS54ALF	SMAF	5000PCS	13"

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By QR Code

Website



Wechat

To find your local partner within Semiware's global website: www.semiware.com

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