



# SK54BLF

## LOW VF SCHOTTKY RECTIFIER

<b>VOLTAGE</b>	<b>40 Volt</b>	<b>CURRENT</b>	<b>5 Ampere</b>
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### FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O utilizing Flame Retardant Epoxy Molding Compound
- Ultra Thin Profile Package for Space Constrained Utilization
- Package suitable for Automated Handling
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Green molding compound as per IEC61249 Std. . (Halogen Free)

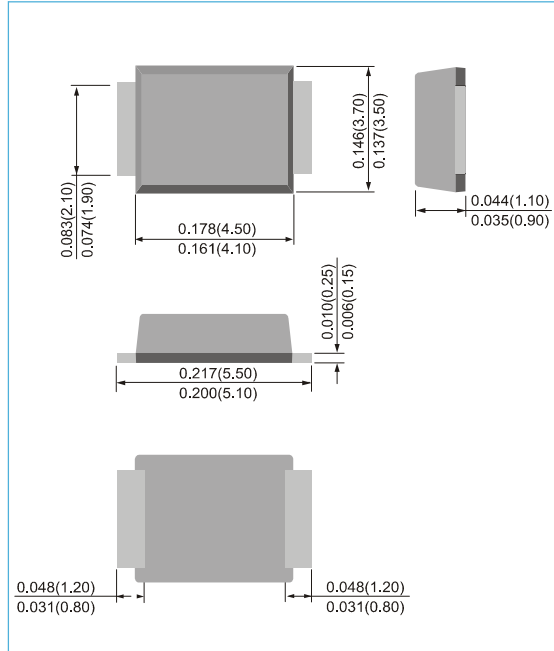
### MECHANICAL DATA

- Case : SMBF, Plastic
- Terminals : Solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Weight: 0.0018 ounces, 0.05 grams



### SMBF

Unit : inch(mm)



### MAXIMUM RATINGS (TA=25°C unless otherwise noted)

PARAMETER	SYMBOL	VALUE	UNITS
Recurrent Peak Reverse Voltage	$V_{RRM}$	40	V
RMS Voltage	$V_{RMS}$	28	V
DC Blocking Voltage	$V_R$	40	V
Average Forward Rectified Current	$I_{F(AV)}$	5	A
Peak Forward Surge Current: 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	100	A
Typical Thermal Resistance , Junction to Ambient (Note 2) Junction to Lead (Note 1)	$R_{\theta JA}$ $R_{\theta JL}$	135 19	°C/W
Typical Junction Capacitance at VR=4V, f=1MHz	$C_J$	430	pF
Operating Junction Temperature and Storage Temperature Range	$T_J, T_{STG}$	-55 to +150	°C

#### NOTES:

1. Mounted on FR-4 PCB, single-sided copper, with 100cm<sup>2</sup> copper pad area.
2. Mounted on FR-4 PCB single-sided copper, mini pad.



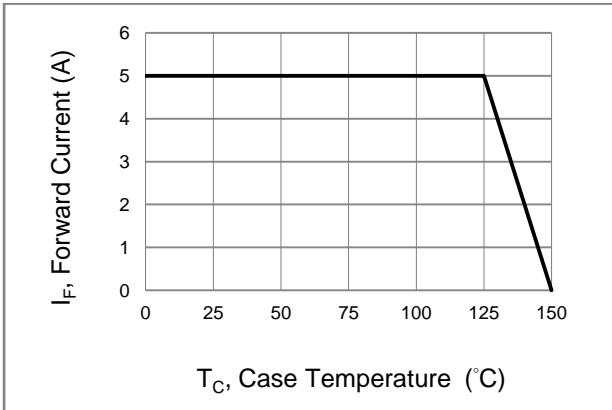
# SK54BLF

## ELECTRICAL CHARACTERISTICS (T<sub>A</sub>=25°C unless otherwise noted)

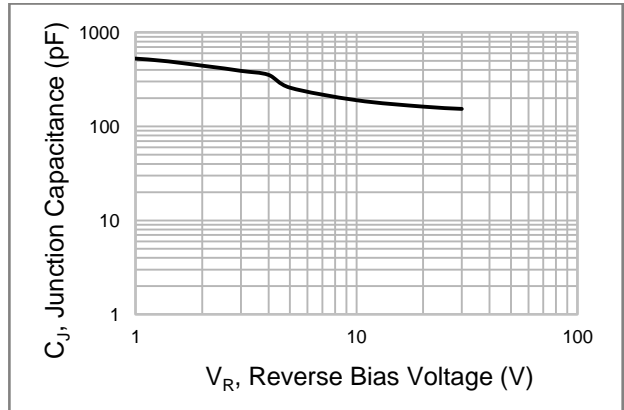
PARAMETER	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNIT
Break down voltage	V <sub>BR</sub>	I <sub>R</sub> =1mA T <sub>A</sub> =25°C	40	-	-	V
Instantaneous forward voltage	V <sub>F</sub>	I <sub>F</sub> =1A I <sub>F</sub> =2.5A I <sub>F</sub> =5A T <sub>A</sub> =25°C	-	0.35 0.39 0.44	- - 0.46	V
		I <sub>F</sub> =1A I <sub>F</sub> =2.5A I <sub>F</sub> =5A T <sub>A</sub> =125°C	- -	0.22 0.28 0.36	- - -	V
Reverse current	I <sub>R</sub>	V <sub>R</sub> =32V T <sub>A</sub> =25°C	-	32	-	μA
		V <sub>R</sub> =40V T <sub>A</sub> =25°C T <sub>A</sub> =125°C	- -	- 60	100 -	μA mA



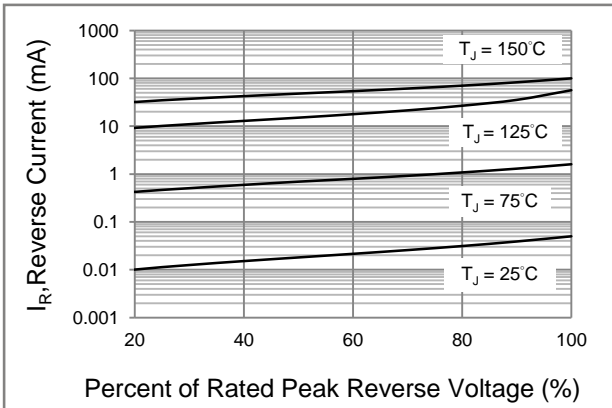
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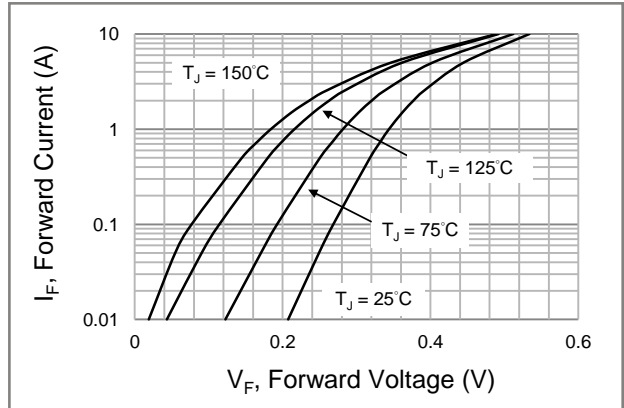
**Fig.1 Forward Current Derating Curve**



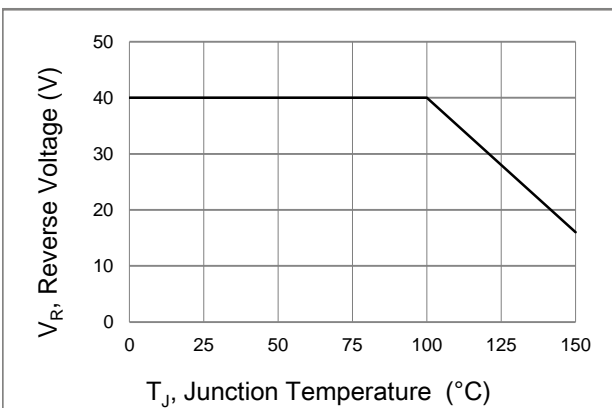
**Fig.2 Typical Junction Capacitance**



**Fig.3 Typical Reverse Characteristics**



**Fig.4 Typical Forward Characteristics**

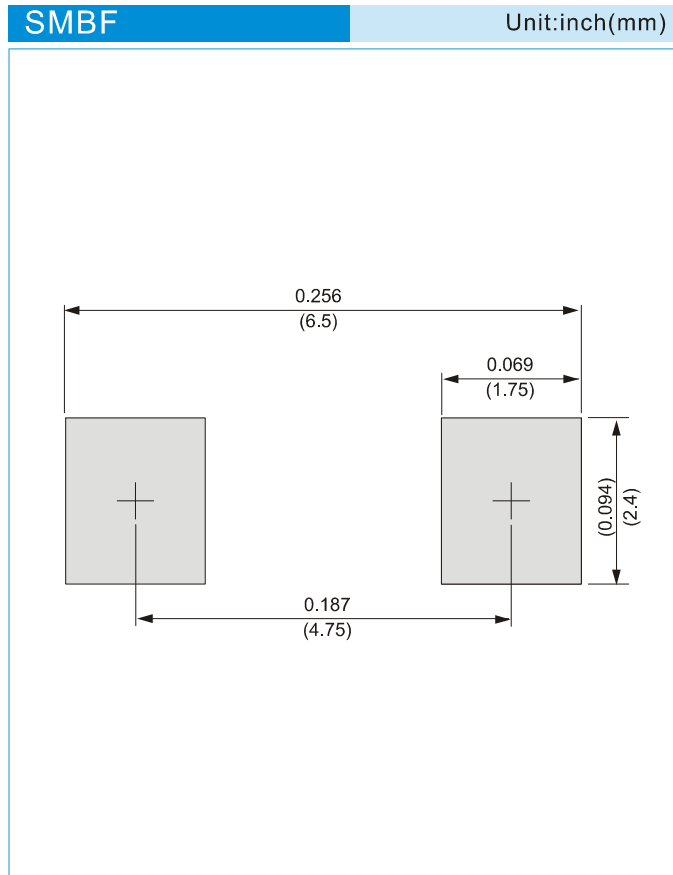


**Fig.5 Operating Temperature Derating Curve**



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## MOUNTING PAD LAYOUT



## ORDER INFORMATION

- Packing information  
T/R - 5K per 13" plastic Reel



# SK54BLF

**Part No\_packing code\_Version**

SK54BLF\_R2\_00001

**For example :**

**RB500V-40\_R2\_00001**



Packing Code <b>XX</b>				Version Code <b>XXXXX</b>		
Packing type	1 <sup>st</sup> Code	Packing size code	2 <sup>nd</sup> Code	HF or RoHS	1 <sup>st</sup> Code	2 <sup>nd</sup> ~5 <sup>th</sup> Code
Tape and Ammunition Box (T/B)	A	N/A	0	HF	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number
Bulk Packing (B/P)	B	13"	2			
Tube Packing (T/P)	T	26mm	X			
Tape and Reel (Right Oriented) (TRR)	S	52mm	Y			
Tape and Reel (Left Oriented) (TRL)	L	PANASERT T/B CATHODE UP (PBCU)	U			
FORMING	F	PANASERT T/B CATHODE DOWN (PBCD)	D			



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