

SK54A SCHOTTKY RECTIFIER

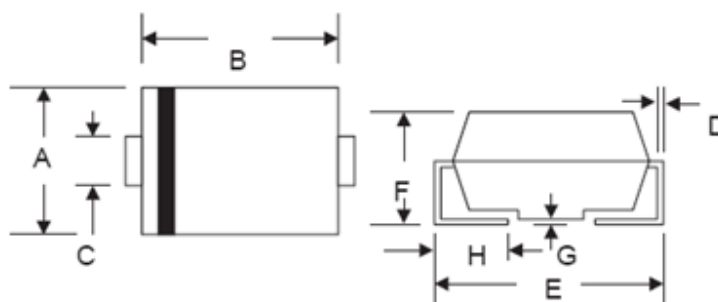
Applications:

- Switching power supply
- Converters
- Free-Wheeling diodes
- Reverse battery protection

Features:

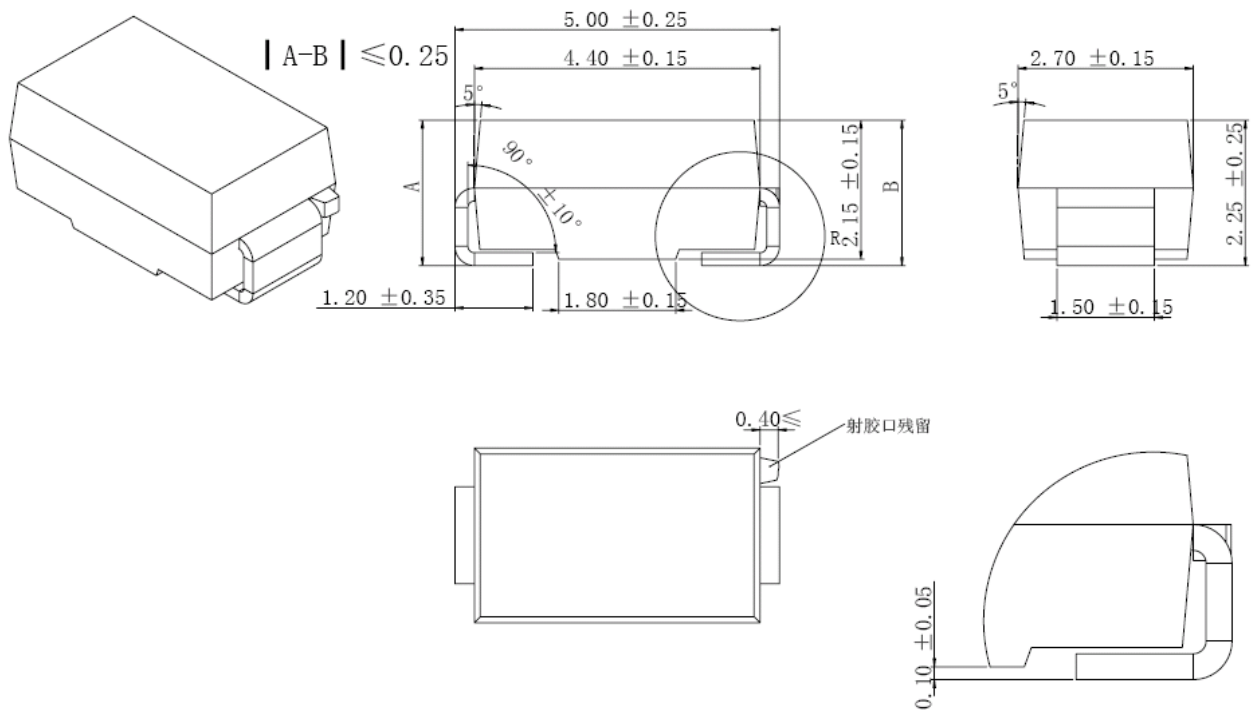
- Small foot print, surface mountable
- Very low forward Voltage Drop
- High frequency operation
- Guard ring for enhanced ruggedness and long term reliability
- Green Products in Compliance the ROHS Directive
- This is a Pb – Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

Mechanical Dimensions (In mm / Inches)



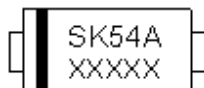
SMA/DO-214AC				
Dim	Min	Max	Min	Max
A	2.50	2.90	0.098	0.114
B	4.00	4.60	0.157	0.181
C	1.40	1.60	0.055	0.063
D	0.152	0.305	0.006	0.012
E	4.80	5.28	0.189	0.208
F	2.00	2.44	0.079	0.096
G	0.051	0.203	0.002	0.008
H	0.76	1.52	0.030	0.060
	In mm		In inch	

OPTION 1



OPTION 2(JK)

SMA

**SK54A****Technical Data**
Data Sheet N1768, Rev. -**Green Products****Marking Diagram:**

Where XXXXX is YYWWL

SK54A = Part Name
YY = Year
WW = Week
L = Lot Number

Cautions: Molding resin
Epoxy resin UL:94V-0

Ordering Information:

Device	Package	Shipping
SK54A	SMA (Pb-Free)	5000pcs / reel

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specification.

Maximum Ratings:

Characteristics	Symbol	Condition	Max.	Units
Peak Inverse Voltage	V_{RWM}	-	40	V
Average Forward Current	$I_{F(AV)}$	50% duty cycle @ $T_L=105^{\circ}\text{C}$ rectangular wave form($L=0.375''$)	5.0	A
Peak One Cycle Non-Repetitive Surge Current	I_{FSM}	8.3 ms, half Sine pulse	125	A

-
- China - Germany - Korea - Singapore - United States •
 - <http://www.smc-diodes.com> - sales@smc-diodes.com •



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Electrical Characteristics:

Characteristics	Symbol	Condition	Max.	Units
Forward Voltage Drop	V_{F1}	@ 5A, Pulse, $T_J = 25^{\circ}\text{C}$	0.65	V
	V_{F1}	@ 5A, Pulse, $T_J = 125^{\circ}\text{C}$	0.63	V
Reverse Current	I_{R1}	@ $V_R = \text{rated } V_R$ $T_J = 25^{\circ}\text{C}$	1.0	mA
	I_{R2}	@ $V_R = \text{rated } V_R$ $T_J = 125^{\circ}\text{C}$	30.0	mA
Typical Junction Capacitance	C_j	@ $V_R = 5.0 \text{ V}$, $T_c = 25^{\circ}\text{C}$ $f_{\text{SIG}} = 1\text{MHz}$	150	PF

* Pulse Width < 300 μs , Duty Cycle < 2%

Thermal-Mechanical Specifications:

Characteristics	Symbol	Condition	Specification	Units
Junction Temperature	T_J	-	-55 to +150	$^{\circ}\text{C}$
Storage Temperature	T_{stg}	-	-55 to +150	$^{\circ}\text{C}$
Maximum Thermal Resistance Junction to Lead	$R_{\theta\text{JL}}$	DC operation	20	$^{\circ}\text{C/W}$
Maximum Thermal Resistance, Case to Heat Sink	$R_{\theta\text{JA}}$	DC operation	77	$^{\circ}\text{C/W}$
Approximate Weight	wt	-	0.11	g
Case Style	SMA			

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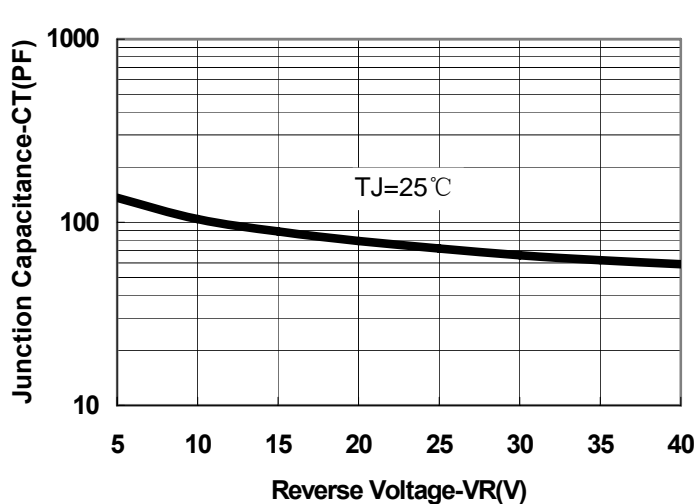


Fig.1-Typical Junction Capacitance Vs.Reverse Voltage

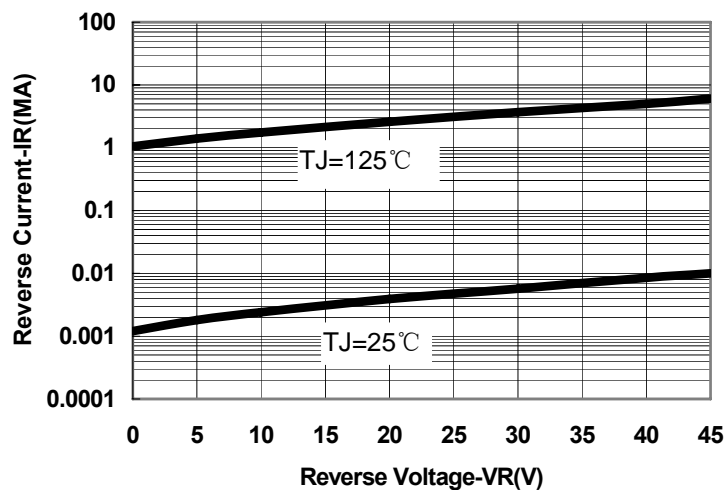


Fig.2-Typical Values Of Reverse Current VS.Reverse Voltage

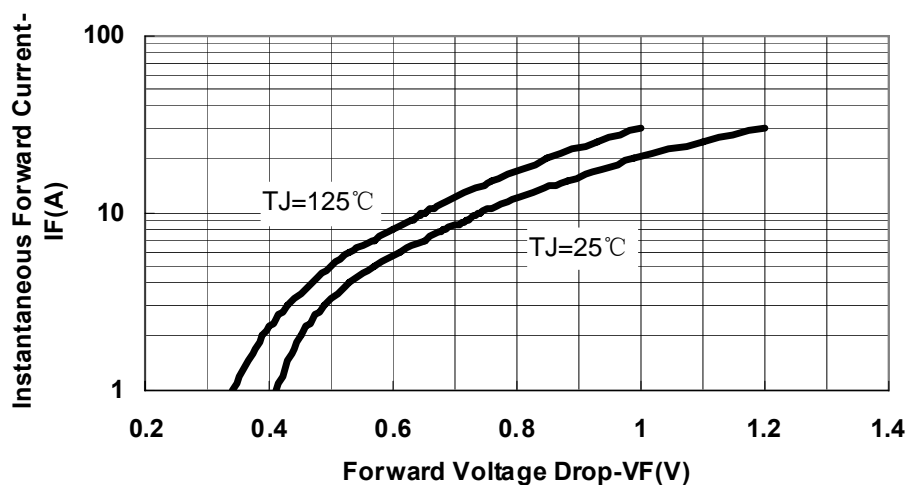


Fig.3-Typical Forward Voltage Drop Characteristics



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