

SK510A SCHOTTKY RECTIFIER

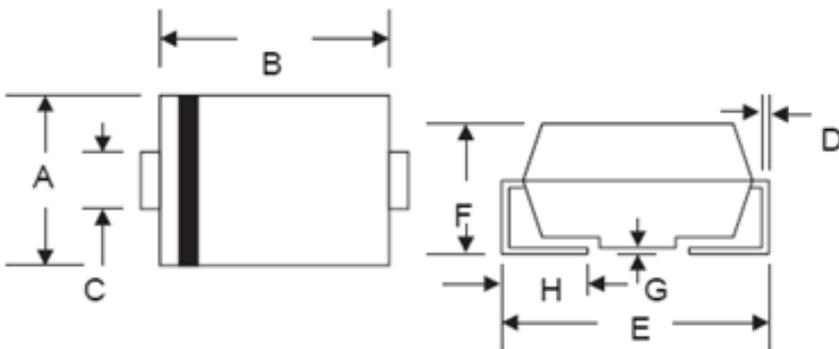
Applications:

- Switching power supply
- Converters
- Free-Wheeling diodes
- Reverse battery protection
- Disk drives
- Battery charging

Features:

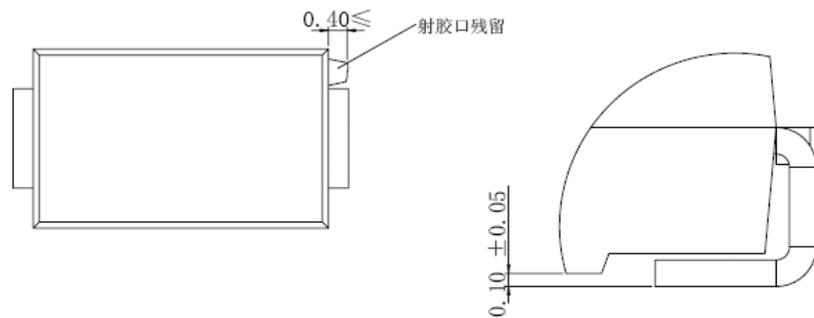
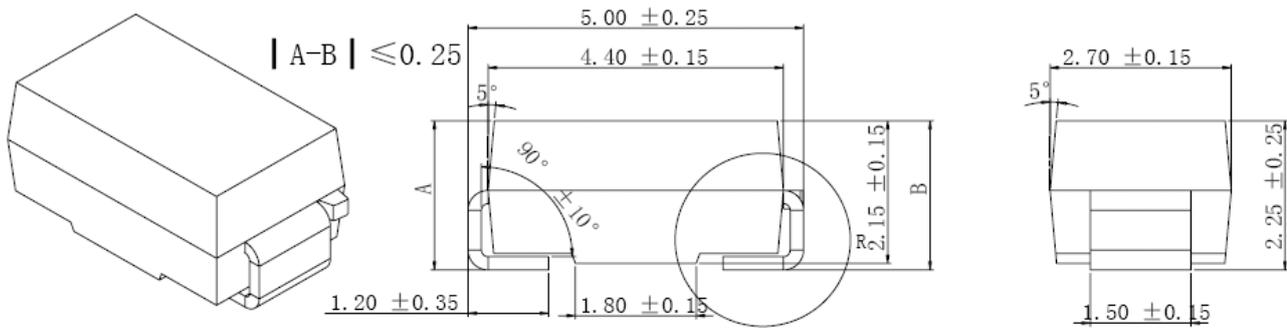
- Small foot print, surface mountable
- Very low forward voltage drop
- High frequency operation
- Guard ring for enhanced ruggedness and long term reliability
- Green products in compliance the ROHS directive
- This is a Pb – Free device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

Mechanical Dimensions: In Inches / mm



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

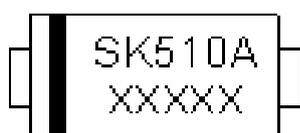


OPTION 2(JK)

SMA

Marking Diagram:

Where XXXXX is YYWWL



SK	= Device Type
5	= Forward Current (5A)
10	= Reverse Voltage (100V)
A	= Package type
YY	= Year
WW	= Week
L	= Lot Number

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

Ordering Information:

Device	Package	Shipping
SK510A	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}	-	100	V
Average Forward Current	$I_{F(AV)}$	50% duty cycle @ $T_C = 115^\circ\text{C}$, rectangular wave form	5	A
Peak one cycle Non-repetitive Surge Current	I_{FSM}	8.3 ms, half Sine pulse	120	A

Electrical Characteristics:

Characteristics	Symbol	Condition	Max.	Units
Forward Voltage Drop*	V_{F1}	@ 5A, Pulse, $T_J = 25\text{ }^\circ\text{C}$	0.85	V
	V_{F2}	@ 5A, Pulse, $T_J = 125\text{ }^\circ\text{C}$	0.70	V
Reverse Current*	I_{R1}	@ $V_R = \text{rated VR}$ $T_J = 25\text{ }^\circ\text{C}$	0.1	mA
	I_{R2}	@ $V_R = \text{rated VR}$ $T_J = 100\text{ }^\circ\text{C}$	2.0	mA
Junction Capacitance (per leg)	C_T	@ $V_R = 4\text{V}$, $T_C = 25\text{ }^\circ\text{C}$ $f_{SIG} = 1\text{MHz}$	200	pF
Voltage Rate of Change	dv/dt	-	10,000	V/us

* Pulse Width < 300 μ s, 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	$R_{\theta JL}$	-	17	$^\circ\text{C/W}$
Maximum Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	-	75	$^\circ\text{C/W}$
Approximate Weight	wt	-	0.11	g
Case Style	SMA			

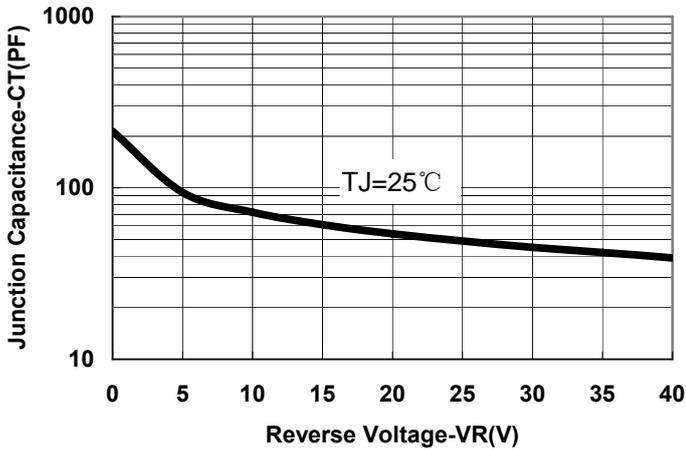


Fig.1-Typical Junction Capacitance Vs. Reverse Voltage

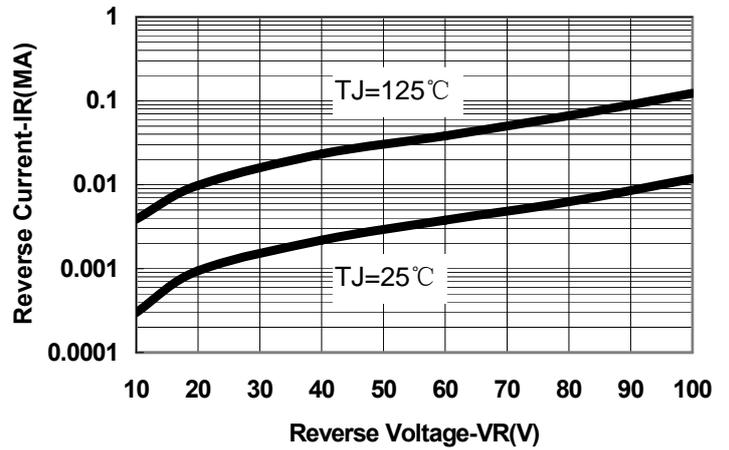


Fig.2-Typical Values Of Reverse Current Vs. Reverse Voltage

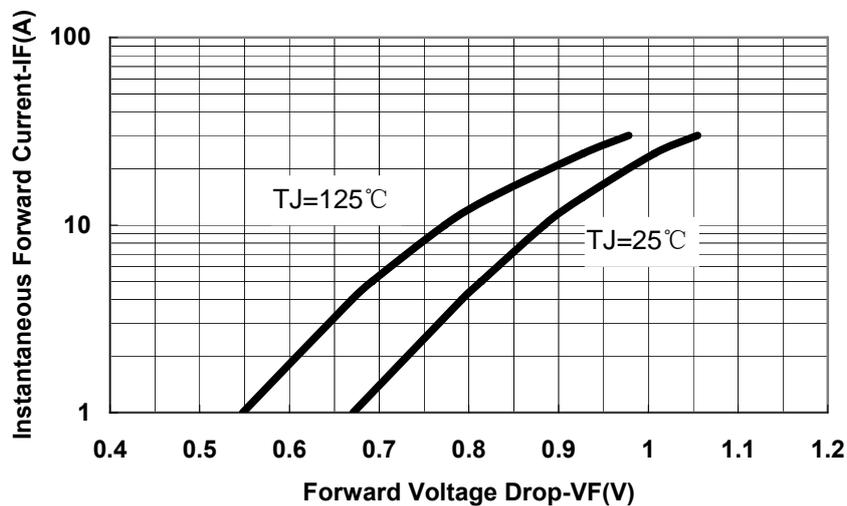


Fig.3-Typical Forward Voltage Drop Characteristics



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